Governmentwide Strategy on Advancing Pay Equality in the Federal Government

April 2014

a New Day for Federal Service

U.S. Office of Personnel Management Report
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April 2014

TABLE OF CONTENTS

U.S. Office of Personnel Management
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Executive Summary

President's Memorandum. On May 10, 2013, President Obama signed a memorandum to the heads of executive departments and agencies (agencies) on Advancing Pay Equality in the Federal Government and Learning from Successful Practices. This memorandum directed the Director of the U.S. Office of Personnel Management (OPM) to submit to the President a Governmentwide strategy to address any gender pay gap in the Federal workforce. This strategy must include—

- An analysis of whether changes to the General Schedule (GS) classification system would assist in addressing any gender pay gap;
- Proposed guidance to agencies to promote greater transparency regarding starting salaries; and
- Recommendations for additional administrative or legislative actions or studies.

OPM Collection of Information from Agencies. To facilitate the development of a Governmentwide strategy, the President's memorandum required each agency to provide OPM information on and an analysis of specific matters related to starting salaries, promotions, and agency-specific policies and best practices. On May 10, 2013, OPM issued a memorandum to agencies providing guidance on reviewing their pay and promotion policies and practices in accordance with the President's memorandum. Our guidance explained that the focus of the review was on policies and practices on starting salaries and promotions for GS employees and equivalent-level white-collar employees in other pay systems. This policy review covered approximately 1.7 million employees (including 1.3 million GS employees) of the approximately 2.1 million Federal employees. We received responses from 51 agencies, including all cabinet-level departments.

OPM Data Analysis. To assist in developing a Governmentwide strategy to address any gender pay issues, we analyzed workforce data reported by agencies to OPM central data systems in each of 3 years—1992, 2002, and 2012. We primarily focused our data analysis efforts on white-collar employees. We produced three overall types of statistical reports: workforce snapshot data, regression-decomposition data analysis, and dynamic data on certain personnel actions such as use of pay-setting flexibilities for new hires and promotion and quality step increase actions. We also collected data on various factors, such as occupation, age, agency, education level, length of service, and supervisory status. With respect to occupation, 37 occupational groups were used in most analyses.

Workforce Changes. We found that during the 20-year period from 1992 to 2012, the Federal Government workforce has undergone dramatic demographic changes. For example, there have been large shifts in the distribution of employees by occupational category and education level. Simultaneously, there have been significant shifts in the male-female distribution across occupations and education levels. In terms of general occupational category (Professional-

Administrative-Technical-Clerical-Other or "PATCO"), there has been a large reduction in Clerical employees and a large increase in Administrative employees. The percentage of females in Professional jobs increased significantly. In terms of education level, the percentage of employees and the percentage of females with a Bachelor Degree or higher increased significantly.

OPM Data Findings. Some additional key data findings from OPM's analysis are highlighted below:

- Over the study years (1992-2002-2012), the gender pay gap has dramatically shrunk from about 30 percent to 13 percent (for All White Collar) and to 11 percent (for GS only).
- The differences in the distribution of males and females across occupational categories appear to explain much of the pay gap. This finding was reinforced by multivariate regression and decomposition analysis, which showed that 70 percent of the White Collar pay gap was explained by the factors used in our analysis and that the occupational factor accounted for 76 percent of the explained portion of the gap in 2012. A separate analysis of the GS population produced similar results—67 percent of the gap was explained in 2012, with 93 percent of that explained portion attributable to the occupational factor. While occupational distribution explains much of the pay gap, we are not ruling out the possibility that discriminatory influences played a role in occupational distribution.
- The regression and decomposition analysis shows that the unexplained portion of the pay gap in 2012 was 30 percent of the total pay gap for All White Collar and 33 percent of the total pay gap for the GS (less than 4 percentage points). (This unexplained portion could be attributable to factors that may or may not be discriminatory that were not accounted for in our analysis (e.g., non-Federal work experience, personal obligations).)
- The pay gap was smaller in younger age groups. Pay gaps at different ages may reflect the differences in occupational distribution at those ages.
- In 2012, pay gaps were found at all education levels, almost all in the 8-10 percent range.
- In 2012, for supervisors and managers, the average female salary was 95.6 percent of the average male salary; however, females made up only 36 percent of supervisors and managers. Among members of the Senior Executive Service (SES), the female salary percentage was 99.2 percent; however, females made up only 33 percent of SES members.
- When we examined pay gaps by grade level for the GS population, we found that there was no significant gap between female and male salaries. However, more females were found in lower grades, which may be a reflection of differences in occupational distribution.
- For GS employees, a discretionary authority to set pay for new hires above the step 1 minimum rate was used more frequently (on a percentage basis) for males than females in all 3 study years. Closer analysis revealed that these actions are most heavily used in three occupational categories that are male-dominated, which affected the overall usage rates.
- For GS employees, females received out-of-cycle "quality" step increases for outstanding performance more frequently (on a percentage basis) than males in all 3 study years.
- Starting salaries were lower for females than males, on average, in all 3 years—roughly 10 percent lower in 2012. When we analyzed White Collar starting salaries for the 37 more-specific occupational categories in 2012, we found that female starting salaries exceeded male starting salaries for 14 categories and were within 5 percent of male starting salaries for another 12 categories. Only 4 categories had pay gaps of more than 10 percent (no more than

12 percent). Differences in occupational distribution between males and females appear to explain much of the overall starting salary pay gap. When we examined GS starting salaries by GS grade level, we found that male and female average starting salaries were quite close in all three years.

- Promotions were received more frequently (on a percentage basis) by females than males in all 3 study years. When we examined White Collar promotion rates for the 37 more-specific occupational categories in 2012, we found that the female promotion rate exceeded the male rate for 27 of 37 categories.

Governmentwide Strategy. The President's memorandum requires OPM to develop a Governmentwide strategy to address any gender pay gap in the Federal Government to include an analysis of the GS classification system, proposed guidance to promote greater starting salary transparency, and recommendations for additional administrative or legislative actions or studies. The following summarizes OPM's recommended strategies.

Analysis of GS Classification System. After a comprehensive review of agency reports, there were no indicators that changes to the GS classification system would assist in addressing any gender pay gap. There was no evidence provided by agencies that the law (i.e., 5 U.S.C. chapter 51), regulations (i.e., 5 CFR part 511), and OPM's policies and standards on GS classification may be affecting gender pay equality. In fact, adherence to the principle of equal pay for equal work is evident based on the agency data collected and reviewed for this study. OPM will work with agencies to review their internal classification policies and application of the GS classification system in compliance with the principle of equal pay for substantially equal work. Additionally, OPM will assist agencies, in exercising their delegated classification authority, in collecting metrics and other relevant agency data to examine classification practices based on a variety of factors, including gender analysis by occupation. In support, OPM will work with agencies to review their application of classification policies and identify their need for guidance and/or training to support human resources (HR) professionals in the application of the GS classification system, and provide tools and guidance on key classification policy issues. OPM currently hosts a quarterly Classification Policy Forum with agency classification leads. We will use this forum to discuss and identify possible gender pay gap issues as they pertain to classification practices. We will also use the forum to champion agency best practices regarding gender pay equality, and to provide support to agencies to promote internal agency partnerships that include their HR, Equal Employment Opportunity and Diversity and Inclusion Offices with the common goal of gender pay equality.

Proposed Guidance to Promote Greater Starting Salary Transparency. OPM will work with agencies to ensure GS equivalent-level salary tables or rate ranges are made available to job candidates to promote greater transparency regarding starting salaries. OPM posts GS and other Governmentwide pay tables that OPM administers on its public website. Agencies are required by law and regulation to post starting pay on competitive job announcements. However, not all agencies make all of their pay tables or rate ranges for their GS equivalent-level employees available to the public. Ensuring agencies post such information on their websites would provide transparency regarding non-GS pay rates for all job candidates.

OPM will also explore ways to ensure pay-setting options and other salary information is made readily available to job candidates as another way to promote greater transparency regarding starting salaries. OPM has fact sheets on pay-setting options for GS employees on its website. We will explore whether to provide links to these fact sheets and other information on starting salaries for GS positions on USAJOBS or on OPM's public website. OPM will work with agencies to ensure that other salary information is also made available to all job candidates for GS and non-GS pay systems.

Additional Administrative or Legislative Actions or Studies. OPM developed five recommendations for additional administrative actions or studies that should be undertaken to address the gender pay gap. First, we will work with agencies to clarify the range of GS pay-setting flexibility and share best practices on setting starting salaries in gender-neutral ways. Some of the best practices agencies shared with OPM are setting pay based on specific criteria for certain occupations and using compensation panels that do not include hiring managers to recommend the use of pay flexibilities.

Second, we will develop guidance for agencies to conduct their own gender data analyses, review their starting salary trends and use of pay-setting flexibilities, and review their promotion data to determine if gender equity issues are apparent so that they can develop approaches to address any issues. Most agencies reported that they do not review their use of pay-setting flexibilities on a periodic basis to examine the gender distribution of employees for which the authorities are used. Most reports also did not indicate that agencies perform other types of pay or promotion data analyses by gender on a routine basis.

Third, we will explore the need to conduct additional Governmentwide statistical analyses to obtain a better understanding of gender pay trends for specific categories of employees not covered by OPM's initial data review.

Fourth, we will work with agencies to share best practices and develop recruitment and outreach strategies for growing female populations in occupations where they are underrepresented—e.g., science, technology, engineering, and mathematics (STEM) and other nontraditional jobs; and supervisory and managerial jobs, as part of an overall recruitment plan. OPM will continue to work with partners from the private and public sector to increase awareness of Federal STEM occupations, promote Federal careers, education, and training opportunities to women and minorities. OPM will continue to provide training for agency HR professionals, agency hiring managers, and Special Programs Coordinators on how to conduct strategic recruitment for mission-critical occupations and hard-to-find skills, including STEM. OPM plans to promote agency "best practices" on attracting and recruiting a diverse workforce in our newly created Recruiting Policy suite on HR University (hru.gov/recruiting/resources.aspx). OPM is creating video tutorials for job seekers available on USAJOBS' YouTube to educate them on the Federal hiring process and hiring programs such as the Pathways Programs for students and recent graduates. OPM will expand social media outreach to include groups and resources directed to women to reach broader, targeted audiences and to raise awareness of agencies' mission and career opportunities. OPM will seek out collaborative recruiting relationships with colleges and universities, technical and trade schools, professional associations, and student organizations to

improve outreach effectiveness and to broaden access to employment opportunities for women, as part of an overall outreach strategy.

Fifth, we will work with agencies to share best practices and develop guidance for when to consider work schedule changes to part-time. This may include exploring with agencies the feasibility of establishing more positions as part-time job sharing positions—, i.e., two or more part-time employees performing the work of one full-time position, to increase the number of promotional opportunities for part-time employees. Positions established as part-time are a very small percentage of Federal positions due to agency workloads and organizational needs. Every reporting agency also considers these factors when deciding employee requests for part-time work schedules. Although agencies reported that part-time employees are considered for promotions on the same basis as full-time employees, additional study is needed to determine the percentage of those employees who must change to a full-time schedule if selected. Depending on the basis for the part-time schedule, part-time employees may be reluctant to accept the higher graded position if doing so would require changing to a full-time schedule. Increasing the number of job-sharing opportunities at various grade levels may provide additional promotion opportunities for females since they work a higher percentage of part-time schedules than males.

U.S. Office of Personnel Management
Governmentwide Strategy on Advancing Pay Equality in the Federal Government

Detailed Report

I.   President's Memorandum

On May 10, 2013, President Obama signed a memorandum to the heads of executive departments and agencies (agencies) on Advancing Pay Equality in the Federal Government and Learning from Successful Practices.[1] This memorandum directed the Director of OPM to submit to the President a Governmentwide strategy to address any gender pay gap in the Federal workforce. This strategy must include—

- An analysis of whether changes to the General Schedule (GS) classification system would assist in addressing any gender pay gap;
- Proposed guidance to agencies to promote greater transparency regarding starting salaries; and
- Recommendations for additional administrative or legislative actions or studies.

To facilitate the development of a Governmentwide strategy, the President's memorandum required each agency to provide OPM information on and an analysis of the following matters:

- All agency-specific policies and practices for setting starting salaries for new employees;
- All agency-specific policies and practices that may affect the salaries of individuals who are returning to the workplace after having taken extended time off from their careers (for example, those who served as full-time caregivers to children or other family members);
- All agency-specific policies and practices for evaluating individuals regarding promotions, particularly individuals who work part-time schedules (for example, those who serve as caregivers to children or other family members);
- Any additional agency-specific policies or practices that may be affecting gender pay equality; and
- Any best practices the agency has employed to improve gender pay equality.

The President's memorandum also directed OPM to provide guidance to agencies on reviewing their pay and promotion policies and practices and on the scope of their review.

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[1] See Presidential Memorandum--Advancing Pay Equality in the Federal Government and Learning from Successful Practices, May 10, 2013, at http://www.whitehouse.gov/the-press-office/2013/05/10/presidential-memorandum-advancing-pay-equality-federal-government-and-le.

II. OPM's Request for Information

A. OPM's guidance memorandum

On May 10, 2013, OPM issued a memorandum to heads of executive departments and agencies providing guidance on reviewing their pay and promotion policies and practices in accordance with the President's memorandum.[2] OPM's guidance explained that the focus of the review was on agency policies and practices on starting salaries and promotions for GS employees and equivalent-level employees in other pay systems.[3] This policy review covered approximately 1.7 million of the approximately 2.1 million Federal employees (or about 81 percent of the workforce). Approximately 1.3 million of the 1.7 million Federal employees are under the GS system (or about 62 percent of the workforce). We also limited the reviews to pay systems that cover more than 100 employees in a given agency, though we encouraged agencies not meeting this threshold to identify any policies or practices that may contribute to gender pay inequality and to share their findings and views with OPM. We did not ask agencies to conduct a data analysis, but we did ask for information (e.g., legal authority, number of employees, etc.) for any "equivalent-level" pay systems covered by an agency's review.

The OPM memorandum provided a list of questions that directly related to the requirements in the President's memorandum to help guide agencies in reviewing their pay and promotion policies and practices and reporting to OPM. The memorandum asked questions regarding—

- Information agencies provide to job applicants or candidates on pay-setting flexibilities and typical starting salaries, whether agencies periodically review their use of pay flexibilities by gender, and, for GS equivalent-level systems, whether salary ranges and tables are available to the general public. These questions were designed to help identify any guidance that may be needed to promote greater transparency regarding starting salaries.
- Use of pay flexibilities (such as the GS superior qualifications and special needs pay-setting authority, GS maximum payable rate rule, and similar flexibilities in equivalent-level systems). These questions were designed to elicit information on agency policies and practices for setting starting salaries for new employees and salaries for individuals who are returning to the workplace after having taken extended time off from their careers.
- Promotion policies and practices. These questions were designed to help gain an understanding for how agencies evaluate individuals for promotions, particularly individuals who work part-time schedules.

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[2] See OPM Memorandum--Request for Information on Pay and Promotion Policies and Practices Relating to Gender Pay Equality, May 10, 2013, at http://www.chcoc.gov/transmittals/TransmittalDetails.aspx?TransmittalID=5478.

[3] The term "equivalent-level employees" refers to white-collar employees who are not in executive or senior-level positions. This term *excludes* employees in blue collar prevailing rate pay systems (i.e., craft, trades, and laboring prevailing rate pay systems with pay set under 5 U.S.C. 5341 et. seq., such as the Federal Wage System or crews of vessels under section 5348); Executive Schedule, Senior Executive Service, and senior-level and scientific and professional positions; administrative law judges; administrative appeals judges; members of boards of contract appeals; and employees in any equivalent pay systems. Experts, consultants, and advisory committee members were also excluded from agency reviews.

- Information on any additional policies or practices in the agency or Governmentwide, including relevant recruitment-related policies and practices and any comments on whether the law, regulations, or policies and standards on GS classification or GS pay setting may be affecting gender pay equality.
- Best practices the agency has employed to improve gender pay equality. Best practices may point to solutions that could be implemented Governmentwide to improve gender pay equality.

B. *Agency reports*

OPM received responses from 51 agencies to its May 10, 2013, request for information on pay and promotion policies relating to gender pay equality. This included reports from all cabinet-level and most independent agencies covered by the reporting requirement. See section V. "Governmentwide Strategy" for additional information on the major findings in agency reports that are guiding this strategy.

III. OPM's Data Analysis Process

To assist in developing and supporting a Governmentwide strategy to address any gender pay issues, we extracted and analyzed workforce data reported by agencies to OPM central data systems. We used data reported to OPM's Enterprise Human Resources Integration—Statistical Data Mart (EHRI-SDM) [4] (and its predecessor the Central Personnel Data File (CPDF)) in each of three years—1992, 2002, and 2012—to analyze trends over the last 20 years. Our study population was limited to nonseasonal, full-time, permanent Executive branch employees in a pay status. We primarily focused our data analysis efforts on white-collar employees, consistent with the agency policy review. We also conducted separate analyses of the white-collar General Schedule workforce. [5]

We produced three overall types of statistical reports—

1. Workforce snapshot data. We extracted and analyzed data by gender to obtain a picture of specific workforce characteristics (or a snapshot) in each December of 1992, 2002, and 2012, such as occupation and grade distribution.
2. Multivariate regression and decomposition data analysis. We used a multivariate regression and decomposition statistical analysis method to account for pay differences by gender that may be due to objective factors or characteristics such as occupation, age, or educational background. This method can be used to isolate the portion of any pay gap that cannot be

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[4] See http://www.fedscope.opm.gov/datadefn/aehri_sdm.asp for additional information on EHRI-SDM.

[5] For purposes of our data analysis, the "General Schedule" population included the core General Schedule pay plans GS (standard), GL (law enforcement officers at grades 3-10), and GM (for those who were formerly covered by a special managerial pay system), but excluded pay plans GP and GR, which cover doctors and dentists receiving title 38 market pay.

attributed to identifiable factors or characteristics. We performed this analysis using data for December 1992, December 2002, and December 2012.[6]

3. Workforce dynamic data. We extracted and analyzed data to gain an understanding of any gender differences in certain personnel actions such as use of the superior qualifications and special needs pay setting authority and promotion and quality step increase actions. We examined data for calendar years 1992, 2002, and 2012.

For purposes of conducting data analysis, we relied on factors in the database that describe employee characteristics. The factors included are listed below, along with the number of subpopulations established for each factor:

- Age (6 age ranges)
- Agency (8 groupings plus other)
- Bargaining unit status (3)
- Disability status (4)
- Duty station (50 states, DC, plus other)
- Education level (10)[7]
- Grade level (for GS employees) (15 grades)
- Law enforcement officer status (2)
- Length of service (8 ranges)
- Occupational category #1 (PATCO code) (5)
- Occupational category #2 (37)
- Pay plan (4)
- Race/ethnicity (6)
- Supervisory status (2)
- Veterans status (3)

The 37 occupational groups under Occupational Category #2 are based on combinations of employees' PATCO code[8] and occupational family[9] or series—e.g., 08xx-P for Professional

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[6] Our regression-decomposition analysis was similar to the analysis that the Government Accountability Office (GAO) performed for its report "Women's Pay: Gender Pay Gap in the Federal Workforce Narrows as Differences in Occupation, Education, and Experience Diminish" (March 2009) at http://www.gao.gov/products/GAO-09-279. GAO performed analyses using September data for 1988, 1998, and 2007. There were some differences between the GAO and OPM analyses in terms of the populations studied and the factors used. For example, the OPM analysis excluded blue-collar employees and used more discrete occupational categories.

[7] Educational level may not be updated after the time of hiring; thus, education level may be understated for some employees. However, OPM and GAO have concluded that the assignment of general education groups (instead of using all possible codes)—such as done in our data analysis—is sufficiently reliable to justify inclusion of this data element in this kind of statistical study.

[8] The PATCO codes provide a very broad description of the type of occupation: Professional (P), Administrative (A), Technical (T), Clerical (C), and Other White Collar (O).

employees in the Engineering and Architecture Job Family. Based on our analysis, we determined that use of the five very broad PATCO categories would prevent us from fully identifying the factors behind gender pay disparities. Inclusion of a more precise measure of occupation does not mean that we are taking a position as to whether or not discrimination is influencing (1) the distribution of males and females across occupational groups or (2) relative grade/pay levels for different occupational groups. Rather we are simply trying to establish what factors most contribute to the gender pay gap. Those factors that have the greatest contributing effect may warrant additional analysis and perhaps corrective measures—to the extent those factors are controllable by the employee or the employer.

IV. Data Analysis Findings

A. *Workforce changes*

During the 20-year period from 1992 to 2012, the Federal Government workforce has undergone dramatic demographic changes. For example, there have been large shifts in the distribution of employees across occupational categories and education levels. Simultaneously, there have been significant shifts in the male-female distribution across occupations and education levels. These shifts are captured by Tables 1 and 2 below. Appendix 1 provides additional data on changes in the composition of the white-collar workforce.

Table 1: Changing Distribution of PATCO Populations and Males/Females within Those Populations - 1992 to 2012 – White Collar (All Pay Plans)

PATCO Occup. Category	1992				2012			
	% of Total	M:F Split	Male % Distrib.	Female % Distrib.	% of Total	M:F Split	Male % Distrib.	Female % Distrib.
Professional	26.5	67:33	34.4	18.2	28.0	55:45	28.6	27.2
Administrative	32.7	60:40	38.1	26.9	43.6	57:43	46.4	40.4
Technical	22.3	43:57	18.7	26.2	18.7	42:58	14.8	23.3
Clerical	15.8	14:86	4.2	28.1	5.3	31:69	3.1	7.9
Other	2.7	90:10	4.7	0.5	4.4	88:12	7.2	1.1

Table 2: Changing Distribution of Education Levels and Males/Females within Those Levels – 1992 to 2012 – White Collar (All Pay Plans)

Education Level	1992				2012			
	% of Total	M:F Split	Male % Distrib.	Female % Distrib.	% of Total	M:F Split	Male % Distrib.	Female % Distrib.
< High School	1.1	36:64	0.8	1.5	0.4	34:66	0.2	0.5

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[9] An "occupational family" or "job family" is a set of occupational series in the same numbered range. White-collar occupational series range from 0001-2299. Each range of hundreds (e.g., 02xx or 0201-0299) is an occupational family.

High School Graduate/GED	22.4	35:65	15.0	30.4	22.1	53:47	21.8	22.4
Occupational Training/Cert.	5.9	28:72	3.2	8.8	3.3	30:70	1.8	5.0
Some College (4 Yrs. or Less)	27.3	44:56	23.3	31.6	20.7	48:52	18.6	23.2
Bachelor Degree	24.7	66:34	31.6	17.3	29.1	58:42	31.5	26.4
Post Bachelor	7.2	73:27	10.2	4.0	5.8	58:42	6.3	5.3
Master Degree	8.0	70:30	10.8	5.0	14.7	56:44	15.4	14.0
Post Master	1.3	76:24	1.9	0.7	0.8	59:41	0.9	0.7
Doctorate	1.7	82:18	2.7	0.6	2.6	61:39	3.0	2.2
Post Doctorate	0.3	87:13	0.5	0.1	0.4	65:35	0.5	0.3

In terms of occupational category (PATCO), there has been a large reduction in Clerical employees and a large increase in Administrative employees. The percentage of Professional jobs held by females has increased from 33 percent to 45 percent. The percentage of females who hold Professional or Administrative jobs increased from 45 percent to 68 percent.

In terms of education level, the number of employees with a Bachelor Degree or higher increased from 43 percent to 53 percent. The percentage of employees holding those higher degrees who were female increased from 31 percent to 42 percent. The percentage of female employees holding those higher degrees increased from 28 percent to 49 percent.

The overall percentage of females in the Federal White Collar workforce was 48 percent in 1992 and dropped slightly to 46 percent in 2012.

B. *Snapshot data findings*

Table 3 below provides percentages capturing the male-female pay relationship at the overall level for All White Collar and for the subset GS population.[10] (Additional data is provided in Appendix 2.)

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[10] In making pay or salary comparisons, we are using adjusted basic pay, which is base pay plus any applicable locality payment or special rate supplement. In comparing female to male salaries, we used male salaries as the base for comparison. Thus, in this report, we express the average female salary as a percentage of the average male salary. For example, for the overall White Collar population (all pay plans) in December 2012, the average female salary was 87.3 percent of the average male salary. The shorthand term used in this report for this percentage is the "female salary percentage." In addition, the gender pay disparity or "pay gap" is expressed in this report as a percentage by (1) subtracting the average male salary from the average female salary and (2) dividing the resulting difference by the average male salary. If the female salary percentage is already computed, 100 percent is subtracted from the female salary percentage to derive the pay gap percentage. For example, if the female salary percentage is 87.3 percent, the pay gap is -12.7 percent (87.3 - 100 = -12.7). In other words, the average female salary is 12.7 percent below the average male salary. (In this report, we show the overall pay gap as a positive number, since it is understood that the gap represents the degree to which female pay is below male pay.)

Table 3: Overall Summary of Gender Pay Gap for All White Collar and General Schedule Populations – as of December Snapshot in 1992, 2002, and 2012

Year	Female Salary Percentage*			Pay Gap**		
	1992	2002	2012	1992	2002	2012
White Collar (All Pay Plans)	70.0%	80.2%	87.3%	30.0%	19.8%	12.7%
General Schedule (GS-GL-GM)	70.3%	81.6%	89.2%	29.7%	18.4%	10.8%

  * Female salary percentage = average female salary divided by average male salary.
** Gap represents the percentage average female salary is below average male salary.

In addition to collecting snapshot data for the overall white-collar and GS populations, we also collected snapshot data for various subpopulations defined based on selected factors (e.g., age, agency, education, occupation). For example, for the Age factor, there are age ranges (e.g., 25-34, 35-44) that define subpopulations for the factor. Appendix 3 provides a list of selected key factors and the associated subpopulations.

Some of our key findings from our analysis of snapshot data are summarized below:

- Over the study years (1992-2002-2012), the pay gap has dramatically shrunk from about 30 percent to 13 percent (for All White Collar) and 11 percent (for GS only).
- The differences in the distribution of males and females across occupational categories appear to explain much of the pay gap. The more discrete the occupational groupings, the more the pay gap is explained. We used three levels of occupational groups: (1) five PATCO categories, (2) 37 groups based on combinations of PATCO code and occupational family, and (3) 350 occupational series. We computed weighted averages based on the size of the subpopulations of occupational groupings and found that those weighted averages increased as the number of occupational groups increased. For example, 97.1 percent was the population-weighted average based on the 37 occupational groups for the All White Collar population in 2012; in contrast, the raw overall gap was 87.3 percent. These data suggest that occupation explains much of the gender pay disparity.
- When we examined the female salary percentages for the 37 occupational groups in 2012, we found that the female average salary exceeded the male average salary for 15 groups (compared to 3 groups in 1992). An additional 6 groups had a female salary percentage of at least 95 percent. (See Appendix 2 for specific details.)
- The pay gap was smaller in younger age groups. For example, in 2012, the female salary percentage was 95.1 percent for the subpopulation of All White Collar employees who are in the 25-34 age range and was 83.1 percent for those in the 55-64 age range. Pay gaps at different ages may reflect the differences in occupational distribution at those ages.
- In 2012, pay gaps were found at all education levels, almost all in the 8-10 percent range. The female salary percentages for the Education Level subpopulations were much closer to the overall raw average in 2012 than in past years; this suggests that differences in education level are explaining less of the gender pay disparity over time.
- In 2012, for supervisors and managers, the female salary percentage was 95.6 percent; however, females made up only 36 percent of supervisors and managers. Among members of the Senior Executive Service (SES), the female salary percentage was 99.2 percent; however, females made up only 33 percent of SES members.

- We examined pay gaps by grade level for the GS population and found that, in 2012, 9 out of 13 grade levels[11] showed the female average salary as higher than the male average salary, which was a significant change from earlier years. The four remaining female salary percentages were 99.9 (grades 1-3 combined), 98.7 (grade 8), 99.5 (grade 14), and 99.5 (grade 15). These data indicate that, for each GS grade, females and males had close to the same average position in range (average step position). The explanation for the difference in the overall female salary percentage (89.2 percent) and these subpopulation percentages near 100 percent is that relatively more females were found in lower grades, which may be a reflection of differences in occupational distribution. (See Appendix 4 for additional data on pay gaps by GS grade level.)

C. *Regression-decomposition findings*

OPM employed multivariate regression-decomposition analysis to determine which factors most influenced the gender pay gap. Application of decomposition methods allowed us to decompose the pay gap into an explained portion (i.e., portion attributable to the factors included in the analysis) and an unexplained portion. The explained portion measures the effect that female characteristics (i.e., percentage distribution of females across the subpopulations for each factor) have on the pay gap. The decomposition method also measures the extent to which the various factors contribute to the explained portion of the pay gap. Thus, it provides insights regarding possible causes of the pay gap. Below we present a table providing summary results of the regression-decomposition analysis, which is followed by selected observations.

Table 4: Results of Multivariate Regression and Decomposition Analysis

Population	Year	Actual Pay Gap	Estimated Pay Gap[12]	Un-explained Portion	Explained Portion	Explained Portion as % of Total Gap	% of Explained Portion Explained by Occupation
White Collar (All Pay Plans)	1992	30.0%	29.4%	4.4%	25.0%	85%	64%
	2002	19.8%	19.4%	4.4%	15.0%	77%	71%
	2012	12.7%	12.9%	3.8%	9.0%	70%	76%
General Schedule (GS-GL-GM)	1992	29.7%	29.3%	4.3%	25.0%	85%	66%
	2002	18.4%	18.5%	4.5%	14.0%	76%	73%
	2012	10.8%	11.6%	3.8%	7.8%	67%	93%

- While the total pay gap has decreased, the portion of the gap explained by included factors has decreased. The Occupation factor (37 occupational groups) had by far the largest impact

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[11] Due to the small populations for grades 1, 2, and 3, those grades were merged to form a single subpopulation; resulting in 13 grade levels instead of 15.

[12] The regression-decomposition analysis produced estimated pay gaps. Because the regression-decomposition method required logarithmic conversions, these estimated gaps do not exactly match the actual overall gaps.

on the explained portion of the pay gap. In 2012, no other factor accounted for more than 10 percent of the explained portion of the gap.

- The Education Level factor was the next most significant factor, but its effects were much less than the Occupation factor and those effects have lessened over time.

While our regression-decomposition analysis shows that some portion of the male-female pay cap is "unexplained"—that is, not explained by the factors included in our analysis—that does not mean that the unexplained gap is necessarily attributable to discrimination. In a March 2009 report, GAO also found an unexplained portion of the male-female pay gap based on a regression-decomposition analysis similar to the one we have conducted. GAO noted that its analysis "neither confirms nor refutes the presence of discriminatory practices" and that the unexplained gap may be due to "the inability to account for certain factors that cannot be effectively measured or for which data are not available." GAO identified the following possible theoretical explanations for the unexplained pay gap:[13]

- Discrimination,
- Imprecise measurement or reporting of data included in analysis (e.g., education level),
- Prior work experience outside the Federal Government (i.e., amount and type of experience),
- Educational major (specific field of study),
- More specific information on type of position/occupation,
- Individual priorities such as personal obligations outside of work (common data proxies are marital status and number of children), and
- Motivation and work performance.

Other possible explanations for the unexplained pay gap could be—

- Care-giving responsibilities (e.g., elder care, age of children being cared for), and
- Availability or absence of a workplace flexibility of importance to the employee (e.g., job with inflexible hours or requiring frequent travel, opportunity to telework).

It is important to also note that even if a portion of male-female pay gap is "explained" by factors included in the analysis, it does not mean that all those factors are immune from possible discriminatory influence. To the extent that the explaining factors are subject to employee or employer control, some unknown portion of the explained gap may reflect the effects of discrimination (either societal or employer-specific). Factors that are shown to have a significant statistical effect on the male-female pay gap should be closely examined to determine if there is an element of discrimination behind the differences. For example, OPM's analysis shows that the difference in occupational distribution is a key factor in explaining the male-female pay gap. The reasons for that difference should be explored and possible strategies of reducing the difference could be implemented. If traditional societal expectations are a reason why women are not equally represented in certain higher-paying occupations, then strategies to encourage women to enter nontraditional occupational fields could be developed.

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[13] See pages 3, 24, 37, 43, 44, 45, 53, and 98 in the March 2009 report "Women's Pay: Gender Pay Gap in the Federal Workforce Narrows as Differences in Occupation, Education, and Experience Diminish" (GAO-09-279).

Some of the factors used in our analysis—such as age, disability status, race/ethnicity, and veterans status—are factors that could potentially generate discrimination based on the factor itself, without regard to gender. It is beyond the scope of our current analysis to examine that issue. Our analysis captures the extent to which those factors contributed to the gender pay gap.

D. *Dynamic data findings*

We collected data from OPM's Dynamics File for calendar years 1992, 2002, and 2012 for White Collar employees with respect to the use of following pay actions:

- Use of superior qualifications and special agency need pay-setting authority to set a newly hired GS employee's starting salary above the step 1 minimum rate,
- Setting of starting salaries for new hires,
- Quality step increases for GS employees with outstanding performance (i.e., a special step increase granted without regard to normal waiting periods), and
- Nontemporary promotions (excluding career-ladder promotions, reclassification promotions, and promotions resulting from the correction of a classification error).

A high-level summary of the results is provided in Appendix 5. Some of our key findings from our analysis of snapshot data are summarized below:

- **Superior qualifications and special needs pay-setting actions** (hereafter, referred to as "superior qualifications actions") were used more frequently (on a percentage basis) for males than females in all 3 years.
  - In 2012, the percentage of male new hires receiving these actions was 12.6 percent, while the corresponding percentage of female new hires was 8.3 percent. In 2012, about 35 percent of all such actions were used for females and 65 percent for males. However, 45 percent of new hires were female.
  - Closer analysis reveals that superior qualification actions are more heavily used in certain occupational categories that are more male-dominated. In 2012, about 44 percent of superior qualification actions occurred in 3 out of 37 occupational categories—08xx-Professional (mainly engineers), 22xx-Administration (information technology), and Xxxx-Professional (other Professional)—which covered only 12 percent of the total GS workforce. During calendar year 2012, the percentage of new hires in those occupations who were female was 19 percent, 20 percent, and 33 percent, respectively. Thus, these male-dominated occupational categories had a disproportionate effect on the usage rates for superior qualifications actions.

- **Starting salaries** were lower for females than males, on average, in all 3 years.
  - The overall pay gap in starting salaries for new hires was about 10-11 percent in 2012, just slightly below the overall pay gap for on-board White Collar employees.
  - The difference between the starting salary pay gap and the on-board employee pay gap has gotten smaller over time; that difference was 13-14 percent in 1992 and 1-2 percent in 2012. These statistics confirm that the composition of the workforce is changing over time as females enter the workforce with higher average starting salaries.
  - When we analyzed White Collar starting salaries for the 37 more-specific occupational categories in 2012, we found that female starting salaries exceeded male starting salaries

for 14 categories and were within 5 percent of male starting salaries for another 12 categories. Only 4 categories had pay gaps of more than 10 percent (no more than 12 percent). Differences in occupational distribution between males and females appear to explain much of the overall starting salary pay gap of 10.7 percent.

o When we examined White Collar starting salaries by education levels, we found some shifts in pay gaps at the various levels in both directions between 1992 and 2012. We computed a population-weighted average pay gap (based on the percentage of new hires in each education level subpopulation) and found that gap was stable over the 3 years (about 89.4-89.5 percent). In 2012, the overall raw pay gap of 10.7 percent was close to the population-weighted average pay gap of 10.5 percent. This suggests that factors other than education level were behind the starting salary pay gap.

o When we examined GS starting salaries by GS grade level, we found that male and female average starting salaries were quite close in all three years (1992, 2002, 2012). While females appear to be treated equally at the same grade level, females tend to be employed at lower grades on average; thus, there was an overall pay gap, which, as noted above, appears to be largely attributable to differences in occupational distribution, which in turn affects grade distribution.

- **Quality step increases** (QSIs) were awarded more frequently (on a percentage basis) to females than males in all 3 years.
  o In 2012, the percentage of GS females receiving a QSI was 3.53, while the corresponding male percentage was 3.11. In 2012, 50.7 percent of QSIs were awarded to females, while they made up only 47.5 percent of the GS workforce. In 2012, the female QSI advantage applied in each PATCO occupational category.
  o When we examined QSI usage rates for the 37 more-specific occupational categories in 2012, we found that the female QSI usage rate exceeded the male rate for 31 of 37 categories. Thus, differences in occupational distribution between males and females did not seem to explain the female advantage in QSI usage rates.
  o In 2012, the female QSI usage rate exceeded the male rate at all 10 educational levels, except the level for Occupational Training/Certificate.
  o In 2012, the female QSI usage rate exceeded the male rate at all GS grade levels 2-15, except for the small-population GS-8 grade.
  o When we examined the male/female QSI usage rates by agency in 2012, we found some agencies where the male usage rate was higher than the female rate.

- **Promotions** were received more frequently (on a percentage basis) by females than males in all 3 years.
  o For the White Collar population in 2012, the overall promotion rate was 3.94 percent for females and 3.38 percent for males. Females received 50.1 percent of promotions even though they made up just 46.3 percent of the total White Collar workforce.
  o When we examined White Collar promotion rates for the 37 more-specific occupational categories in 2012, we found that the female promotion rate exceeded the male rate for 27 of 37 categories. The overall average promotion rate was affected by the promotion rate for each occupational category and the mix of males and females in each category.
  o In 2012, the White Collar female promotion rate exceeded the male rate at all 10 educational levels, except the level for Occupational Training/Certificate.

V. Governmentwide Strategy

The President's May 10, 2013, memorandum directed the Director of OPM to submit to the President a Governmentwide strategy to address any gender pay gap in the Federal workforce. Based on our data analysis and the information reported to OPM by agencies, OPM recommends the following Governmentwide strategy for each of the three issue areas covered by the President's memorandum:

A. *Analysis of whether changes to the General Schedule classification system would assist in addressing any gender pay gap*

Recommendation: OPM will work with agencies to review their internal classification policies and application of GS classification system in compliance with the principle of equal pay for substantially equal work.

The classification standards program for GS positions was established by the Classification Act of 1949, and has been codified in chapter 51 of title 5, United States Code. The statute establishes the principle of providing equal pay for substantially equal work. After a comprehensive review of agency reports, there were no indicators that changes to the GS classification system would assist in addressing any gender pay gap. There was no evidence provided by agencies that the law (i.e., 5 U.S.C. chapter 51), regulations (i.e., 5 CFR part 511), and OPM's policies and standards on GS classification may be affecting gender pay equality. In fact, adherence to the principle of equal pay for equal work is evident based on the agency data collected and reviewed for this study. Although the GS classification system was not indicated as having an effect on gender pay equality, future agency studies may focus on the *application* of the GS classification system.

Additionally, OPM will assist agencies, in exercising their delegated classification authority, in collecting metrics and other relevant agency data to examine classification practices based on a variety of factors, including gender analysis by occupation. For example, data collected in this study indicate pay gaps in some traditionally non-female occupations, i.e., occupations where female representation is below 25 percent particularly in certain science, engineering, and related "technical" occupations. Other data indicate pay gaps in some predominantly female occupations (where women representation is 50-60 percent or more of the occupation). (See Appendix 3.) OPM will explore future agency studies of such occupations in terms of grade patterns by gender so that agencies can better assess the effective application of the GS classification system.

In support, OPM will work with agencies to review their application of classification policies and identify their need for guidance and/or training to support human resources (HR) professionals in the application of the GS classification system, and provide tools and guidance on key classification policy issues.

OPM currently hosts quarterly Classification Policy Forum with agency classification leads. OPM will use this forum to discuss and identify possible gender pay gap issues as they pertain to

classification practices. We will also use the forum may to champion agency best practices regarding gender pay equality, and to provide support to agencies to promote internal agency partnerships that include their HR, Equal Employment Opportunity and Diversity and Inclusion Offices with the common goal of gender pay equality.

B. Proposed guidance to agencies to promote greater transparency regarding starting salaries

Recommendation 1: OPM will work with agencies to ensure GS equivalent-level salary tables or rate ranges are made available to job candidates.

One component to help ensure transparent starting salaries is to make pay tables or rate ranges for positions readily available to job candidates. OPM posts the GS and other Governmentwide pay tables that OPM administers on its public website.[14] As stated previously, the GS system covers the majority of the Federal workforce.

Another component to help ensure transparency in starting salaries is to provide salary information for a vacant position in a job announcement. Agencies are required by law and regulation to post starting pay on competitive service job announcements. Under 5 U.S.C. 3330, OPM must establish and keep current a comprehensive list of all announcements of vacant positions in the competitive service within each agency that are to be filled by appointment for more than 1 year and for which applications are being (or will soon be) accepted from outside the agency's work force. OPM's regulations implementing this law for competitive service positions are in 5 CFR 330.104. Regarding salary, they state that the vacancy must contain the starting pay. OPM maintains USAJOBS (www.usajobs.gov) as a web-based job board to meet its legal obligation. Any position listed must include a brief description of the position, including its title, tenure, location, and rate of pay. Often agencies post the rate range for the position. For example, the agency would post the step 1 rate (the minimum rate) and the step 10 rate (maximum rate) for a GS grade including any locality payment or special rate supplement for the position.

In the gender pay equality information request, OPM asked agencies whether pay tables or rate ranges for their GS equivalent-level employees are available to the public. Agencies provided mixed responses. Some agencies mentioned that the non-GS rate ranges were posted on job announcements. Eight agencies responded that their non-GS pay tables or rate ranges are available to the public on their websites. Four agencies mentioned that they use a pay system that is identical to the GS system, which is available on OPM's website. Five agencies stated that some of their GS equivalent-level pay tables or rate ranges are available to the public and some are not. Six agencies indicated that none of their equivalent-level pay tables or rate ranges are available to the public. Agencies shared a variety of reasons why they do not provide their non-GS pay tables or rate ranges to the public including the agency being new, there being no legal requirement to do so, or administrative difficulties because there are too many pay tables.

OPM will work with agencies with GS equivalent-level pay systems to post salary tables or rate ranges on their public websites. Ensuring agencies post such information on their respective

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[14] See salaries and wages at http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/.

websites would provide transparency regarding non-GS pay rates for all job candidates. In addition, such information should be updated as soon as there are increases or other changes to their pay tables or rate ranges and include agency contact information about the pay system for all job applicants.

Recommendation 2: OPM will explore ways to ensure pay-setting options and other salary information is made readily available to job candidates.

Ensuring that all job applicants understand agency pay-setting options and have other salary information available promotes starting salary transparency. A new GS employee is usually hired at step 1 of the applicable GS grade. However, in special circumstances, agencies may authorize a higher step rate for a newly-appointed Federal employee based on a special need of the agency or superior qualifications of the prospective employee. (Newly-appointed includes employees who are reappointed after at least a 90-day break in service.) Current Federal employees who move to a GS position and are not considered newly appointed may have pay set above step 1 based only on a previous Federal civilian rate of pay (i.e., maximum payable rate rule) under the gaining agency's policies.

OPM has fact sheets on the superior qualifications and special needs pay setting authority and the maximum payable rate rule that an agency may use to set an employee's starting salary on its public website.[15] OPM also has a fact sheet on GS classification and pay.[16] However, job applicants may not know to look for the fact sheets.

Generally, most agencies reported that they do not provide all applicants information on the pay-setting flexibilities the agency uses and, of those that provide information, there is no consistent approach. A few agencies or components within agencies reported making their use of pay-flexibilities public on vacancy announcements, the agency's website, or at job fairs. Several agencies stated that they provide information upon request. Agencies may discuss pay flexibilities with candidates during the interview process, when the candidate is tentatively selected, or if the candidate declines the position.

OPM will explore whether to provide links to its fact sheets and other information on starting salaries for GS positions on USAJOBS or on OPM's public website. OPM also will work with agencies to ensure that information regarding the pay flexibilities that they use and other salary information is also made available to all job candidates for GS and non-GS pay systems. If the information is accessible, it increases the likelihood that all job candidates will ask about the pay flexibilities and be better able to discuss them with the agency during the hiring process.

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[15] See superior qualifications and special needs pay-setting authority fact sheet at http://www.opm.gov/policy-data-oversight/pay-leave/pay-administration/fact-sheets/superior-qualifications-and-special-needs-pay-setting-authority/ and maximum payable rate fact sheet at http://www.opm.gov/policy-data-oversight/pay-leave/pay-administration/fact-sheets/maximum-payable-rate-rule/.

[16] See GS classification and pay fact sheet at http://www.opm.gov/policy-data-oversight/pay-leave/pay-systems/general-schedule/.

C. Recommendations for additional administrative or legislative actions or studies

Recommendation 1: OPM will work with agencies to clarify the range of GS pay-setting flexibility and share best practices on setting starting salaries in gender-neutral ways.

The GS pay system is designed with standardized rules and criteria for setting pay for employees entering Federal service for the first time, returning to Federal employment, and upon promotion and other position changes within the Federal Government. These standardized rules help to promote equitable treatment among employees. Where there is pay-setting flexibility, agencies must ensure such flexibilities are exercised in gender-neutral ways so as not to disadvantage any individual, such as those returning to the workplace after a career break.

OPM's regulations in 5 CFR part 531, subpart B, provide criteria for using the superior qualifications and special needs pay-setting authority for GS positions. After an agency has determined that a candidate has superior qualifications or the agency has a special need for the candidate's services, the agency determines the step at which to set the employee's rate of basic pay. The regulations state that an agency may consider one or more of nine listed factors (including a candidate's existing pay, recent salary history, or salary in a competing job offer), or other relevant factors when making this determination.

Most agencies with GS employees reported using the superior qualifications and special needs pay-setting authority in fiscal year (FY) 2012 and have written policies on the authority. Agency reports provide a wide variety of examples of approval requirements, criteria, or limitations that they have established in addition to those required by OPM's regulations. These include an approval level that is higher than what is required by the regulations, limiting how high pay can be set above a candidate's existing pay, stating what factors must be considered or what additional factors may be considered when setting pay, and limiting use of the authority to higher-level positions or certain occupations. While OPM's regulations provide agencies the discretion to consider a candidate's existing salary when setting pay under this authority, 14 agencies stated that they require the use of the candidate's existing salary or that the existing salary must be considered. This could potentially adversely affect a candidate who is returning to the workplace after having taken extended time off from his or her career.

Some agencies shared examples of how they set pay under the superior qualifications and special needs pay-setting authority using well-defined approval criteria. They set pay at a pre-determined step or pay rate for job candidates with similar education or experience who are filling a group or category of similar positions. For example, one agency component sets pay at a certain grade and step based on the type of degree the candidate holds and the candidate also must have a specified class rank or grade point average and have attended an accredited school. Another agency component applies a "blind practice method" where the HR office sets pay rather than the hiring official to eliminate pay disparities. The HR office assesses the graduation year from school, type and length of relevant experience, and the current salary of the candidate (as a last consideration).

The criteria for using the maximum payable rate (MPR) rule for GS positions also is in 5 CFR part 531, subpart B. Most agencies reported using this rule in FY 2012. Over half of the

agencies with GS employees have written policies, and about half of those policies are more specific than the regulations. Most agency or component policies do not address how recent the employee's highest previous rate (HPR) must be to be used in applying the MPR rule. One agency commented that the MPR rule helps minimize any negative impact that may occur for employees who have extended breaks in service. (Under this rule, an agency compares the employee's HPR to the applicable rate range in effect when the employee earned his or her HPR to find the MPR and then brings the step forward to the current applicable rate range.)

One agency uses a compensation panel to recommend pay for one group of its GS equivalent-level employees and boards to recommend pay for its other GS equivalent-level employees. The panel and boards include employees in the occupation for which pay is being set. They have specific criteria to consider when setting pay, such as setting pay based on the number of years of service in the occupation in the agency and supervisory or managerial level.

OPM will work with agencies to determine where additional guidance may be needed on the superior qualifications and special needs pay-setting authority to clarify the factors that may be used to set pay. While agency policies may place more restrictions on pay setting than OPM's regulations, we will provide guidance to agencies to make sure they consider the complete picture of the candidate and the situation rather than placing too much emphasis on a candidate's existing pay.

OPM also will work with agencies to identify and share best practices with agencies on setting starting salaries in gender-neutral ways. This could include setting pay based on specific criteria for certain occupations and using compensation panels that do not include hiring managers to recommend the use of pay flexibilities. Agencies may want to consider the diversity of the panel members when establishing a panel.

Recommendation 2: OPM will develop guidance for agencies to conduct their own gender data analyses, review their starting salary trends and use of pay-setting flexibilities, and review their promotion data to determine if gender equity issues are apparent so that they can develop approaches to address any issues.

Most agencies reported that they do not review their use of pay-setting flexibilities on a periodic basis to examine the gender distribution of employees for which the authorities are used. Most reports also did not indicate that agencies perform other types of pay or promotion data analyses by gender on a routine basis. The few agencies or components within agencies that reported conducting such reviews have different methods. One agency and an agency component with GS equivalent-level pay systems compare the average salaries of men and women by grade level. Another agency with a GS equivalent-level pay system conducted a statistical analysis to compare salaries. Components at two agencies with GS employees periodically review their use of pay-setting flexibilities. One focuses on tracking information on use of the superior qualifications and special needs pay-setting authority and then using the information to inform future determinations regarding the use of the authority.

OPM (or an interagency workgroup, including OPM) will develop guidance for agencies on how they can conduct data analyses similar to those that OPM conducted for the purposes of this

strategy. This could include reviewing starting salary trends, the use of pay-setting flexibilities, and promotion data to determine if there are any differences when examining the gender of employees and the reasons for those differences. Agencies could then develop strategies to address any differences that they find.

Recommendation 3: OPM will explore the need to conduct additional Governmentwide statistical analyses to obtain a better understanding of gender pay trends for specific categories of employees not covered by OPM's initial data review.

In performing data analysis to support this report, we focused primarily on white-collar employees. We performed regression-decomposition analysis only for the total white-collar population. We believe additional regression-decomposition analyses may be useful. For example, we could perform a regression-decomposition analysis for blue-collar employees. In addition, we could perform regression-decomposition analyses for specific subpopulations within the white-collar workforce, such as occupational groups with the largest pay gaps or newly hired employees. We will also explore presenting certain gender-based snapshot data in two layers, such as showing data by (1) occupational category and (2) education level.

Recommendation 4: OPM will work with agencies to share best practices and develop recruitment and outreach strategies for growing female populations in occupations where they are underrepresented, e.g., STEM, nontraditional, and supervisory and managerial jobs.

As previously stated, the differences in the distribution of males and females across occupational categories appear to explain much of the pay gap. Therefore, OPM will work with agencies to share best practices and develop recruitment and outreach strategies for growing female populations in occupations where they are underrepresented, such as STEM and other nontraditional jobs, and supervisory and managerial jobs, as part of an overall recruitment plan. Eight reporting agencies use targeted outreach to attract more women as prospective employees. Two agencies maintain relationships with colleges and universities to promote career opportunities. One agency component started a print campaign targeting national publications geared towards female business professionals in certain markets and increased their social media presence, and made it a point to target women through women specific conferences and symposiums. One agency portrays women in higher-paying occupations in print and online recruitment materials. Another agency sponsors and participates in the Society of Women Engineers annual conference to recruit women for STEM occupations. A different agency conducts activities with particular constituent communities, including those with primary professional women membership. One agency reported that a component created a division-wide recruitment team to create a strategic approach to recruiting and selecting future employees, and eliminate any barriers resulting in inequality of employment. The team ensures that all markets, including those that have a majority male representation, are considered when recruiting for qualified candidates to fill the division's mission-critical occupations. Another agency also utilizes recruitment plans for high-level positions. Each recruitment plan is carefully researched to find websites for qualified women and minorities, as part of the overall recruitment plan. The agency has found this to be a low-cost and successful way to reach diverse populations.

OPM will continue to provide training for agency HR professionals, agency hiring managers, and Special Programs Coordinators on how to conduct strategic recruitment for mission-critical occupations and hard-to-find skills, including STEM. In FY 2013, OPM trained 1,100 Federal employees in 33 individual two-day sessions.

OPM plans to promote agency "best practices" in our newly created Recruiting Policy suite on HR University.[17] Information on recruiting strategies and effective outreach practices to attract and recruit a diverse workforce will be available to agencies.

OPM is creating video tutorials for job seekers available on USAJOBS' YouTube to educate them on the Federal hiring process and hiring programs such as Pathways Programs.[18] Agencies can post OPM-developed outreach materials and videos on their agency websites.

OPM will partner with minority and professional organizations to educate women job seekers on how to find and apply for Federal jobs, the Federal hiring process, Federal resume writing, and career opportunities in the Federal Government (including the Presidential Management Fellows Program/STEM track). In addition, OPM will continue to partner with the Federal Chief Information Officers Council to expand and enhance the Federal Job Shadow Day Governmentwide and nationwide with an emphasis on women and minorities in STEM.

OPM will continue to work with the National Initiative for Cybersecurity Education (NICE) to promote Federal careers, education, and training opportunities to women and minorities.

OPM will continue to work with partners from the private and public sector to increase awareness of Federal STEM occupations by enhancing the Federal presence at Science and Engineering Festivals, Cybersecurity Competitions, etc. OPM will expand social media outreach to include groups and resources directed to women to reach broader, targeted audiences and to raise awareness of agencies' mission and career opportunities. OPM will seek out collaborative recruiting relationships with colleges and universities, technical and trade schools, professional associations, and student organizations to improve outreach effectiveness and to broaden access to employment opportunities for women, as part of an overall outreach strategy.

Recommendation 5: OPM will work with agencies to share best practices and develop guidance for when to consider work schedule changes to part-time.

Most agencies reported they do not have specific policies in place for establishing part-time positions outside of policies required by the Part-Time Career Act, which included consideration of job-sharing opportunities. A few of the larger agencies have overarching policies that require consideration of organizational needs but ultimately leave the decision to manager discretion. Some smaller agencies establish positions only as full-time but will consider individual employee requests to switch to part-time. Almost all reporting agencies consider employee requests to switch to a part-time work schedule on a case-by-case basis. Decisions are left to the

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[17] HR University is accessible at www.hru.gov.

[18] Current videos are available at http://www.youtube.com/user/usajobsapp.

manager/supervisor without specific agency-wide criteria to consider. However, most agencies reported that managers consider factors such as the effect on the organization, on the workload, and on the workforce when deciding whether to approve the request. A few agencies also consider work/life balance and whether disapproval will cause the employee to resign.

All agencies reported part-time promotion opportunities are advertised and part-time employees are considered and evaluated for promotion on the same basis as full-time opportunities and employees.

Positions with part-time work schedules are a small percentage of all work schedules (3 percent) with females totaling 61 percent of those schedules.[19] The majority of part-time work schedules are in grades below the GS-12 level. As mentioned above, every reporting agency considers organizational workload and needs when deciding employee requests for part-time work schedules; however, few agencies have uniform criteria in place.

OPM will explore whether the lack of part-time schedules at higher levels is based on the lack of or inconsistent criteria used in approving requests. OPM will also work with agencies to share best practices and develop general criteria or guidance to aid with agency consistency and transparency.

OPM also will explore with agencies the feasibility of establishing more positions as part-time job-sharing positions— i.e., two or more part-time employees performing the work of one full-time position, to increase the number of promotional opportunities for part-time employees, the majority of whom are female.   Although agencies reported that part-time employees are considered for promotions on the same basis as full-time employees, additional study is needed to determine the percentage of those employees who must change to a full-time schedule if selected. Depending on the basis for the part-time schedule, part-time employees may be reluctant to accept the higher graded position if doing so would require changing to a full-time schedule. Increasing job-sharing opportunities may provide additional promotion opportunities for females on part-time schedules.

VI. Appendices

1. Summary of Subpopulation Percentages, Male-Female Split, and Male/Female Distributions by Subpopulation
2. Overall Summary of Snapshot Data by Year—White-Collar (All Pay Plans) and General Schedule Total Populations
3. Summary of Key Snapshot Data by Subpopulations by Year
4. Snapshot Data by General Schedule Grade Level
5. Summary of Dynamic Data Findings

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[19] June 2013 FedScope data. FedScope is available at http://www.opm.gov/policy-data-oversight/data-analysis-documentation/fedscope/.

Summary of Subpopulation Percentages, Male-Female Split, and Male/Female Distributions by Subpopulation

White Collar (All Pay Plans)
Nonseasonal full-time permanent employees in pay status in the Executive Branch

	Dec. 1992				Dec. 2002				Dec. 2012			
	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution
Total Population	100.00	52 : 48	100.00	100.00	100.00	52 : 48	100.00	100.00	100.00	54 : 46	100.00	100.00

Factors:
  Subpopulations

Age category (years)

<25	2.69	31 : 69	1.62	3.85	1.67	50 : 50	1.60	1.75	1.05	51 : 49	1.00	1.11
25-34	20.39	45 : 55	17.65	23.32	12.09	52 : 48	12.01	12.18	16.58	54 : 46	16.79	16.34
35-44	32.84	49 : 51	31.37	34.41	27.52	50 : 50	26.41	28.74	22.39	54 : 46	22.60	22.15
45-54	30.11	58 : 42	33.60	26.37	38.15	52 : 48	37.56	38.79	33.42	54 : 46	33.34	33.52
55-64	12.45	59 : 41	14.14	10.64	18.65	57 : 43	20.28	16.87	22.93	52 : 48	22.26	23.69
65+	1.52	55 : 45	1.62	1.42	1.92	59 : 41	2.15	1.67	3.63	59 : 41	4.01	3.19

Education level

Below High School	1.14	36 : 64	0.80	1.50	0.71	32 : 68	0.44	1.01	0.35	34 : 66	0.22	0.50
High School Graduate Or Equivalency (GED)	22.44	35 : 65	15.00	30.39	24.18	43 : 57	19.91	28.87	22.12	53 : 47	21.84	22.44
Occupational Training/Certificate Or Equivalency	5.92	28 : 72	3.21	8.81	4.20	29 : 71	2.35	6.23	3.32	30 : 70	1.84	5.04
Some College (4 Years Or Less)	27.33	44 : 56	23.33	31.61	24.95	45 : 55	21.36	28.90	20.74	48 : 52	18.62	23.20
Bachelor Degree	24.67	66 : 34	31.56	17.31	26.30	62 : 38	31.08	21.05	29.13	58 : 42	31.48	26.39
Post Bachelor	7.24	73 : 27	10.23	4.04	6.38	66 : 34	8.07	4.51	5.84	58 : 42	6.32	5.28
Master Degree	7.97	70 : 30	10.76	4.98	9.94	64 : 36	12.09	7.58	14.72	56 : 44	15.38	13.96
Post Master	1.31	76 : 24	1.93	0.65	0.97	70 : 30	1.30	0.61	0.79	59 : 41	0.86	0.70
Doctorate Degree	1.68	82 : 18	2.67	0.63	2.04	74 : 26	2.90	1.10	2.62	61 : 39	2.99	2.19
Post Doctorate	0.30	87 : 13	0.51	0.08	0.33	79 : 21	0.51	0.15	0.38	65 : 35	0.46	0.29

Length of service category (years)

<5	16.95	43 : 57	14.00	20.10	16.17	54 : 46	16.64	15.66	26.96	56 : 44	28.13	25.60
5-9	20.82	47 : 53	18.90	22.88	10.38	56 : 44	11.06	9.63	19.53	57 : 43	20.64	18.24
10-14	17.94	48 : 52	16.56	19.42	16.77	49 : 51	15.72	17.92	14.74	57 : 43	15.61	13.73
15-19	16.13	51 : 49	16.02	16.25	18.46	49 : 51	17.37	19.67	7.98	56 : 44	8.27	7.65
20-24	13.12	60 : 40	15.16	10.94	15.19	49 : 51	14.15	16.33	11.04	49 : 51	10.06	12.18
25-29	9.05	62 : 38	10.81	7.17	12.50	53 : 47	12.74	12.24	10.20	48 : 52	9.10	11.49
30-34	4.21	74 : 26	6.00	2.30	7.47	62 : 38	8.80	6.03	5.95	46 : 54	5.03	7.01
35+	1.77	74 : 26	2.54	0.95	3.05	61 : 39	3.53	2.53	3.60	47 : 53	3.17	4.11

Occupational Category #1 (PATCO)

A-Administrative	32.70	60 : 40	38.07	26.95	39.96	55 : 45	42.18	37.52	43.61	57 : 43	46.35	40.42
C-Clerical	15.75	14 : 86	4.21	28.09	7.49	18 : 82	2.57	12.90	5.31	31 : 69	3.06	7.94
O-Other White Collar	2.68	90 : 10	4.68	0.54	3.56	89 : 11	6.07	0.81	4.38	88 : 12	7.20	1.10
P-Professional	26.55	67 : 33	34.38	18.17	26.21	62 : 38	30.94	21.01	27.98	55 : 45	28.62	27.23
T-Technical	22.32	43 : 57	18.66	26.24	22.78	42 : 58	18.24	27.76	18.72	42 : 58	14.77	23.32

Occupational Category #2 (PATCO and Job Family)

00xx-A Miscellaneous Occupations (Admin)	1.45	71 : 29	2.00	0.87	1.84	67 : 33	2.34	1.29	1.83	68 : 32	2.30	1.29
00xx-O Miscellaneous Occupations (Other)	2.20	93 : 7	3.96	0.31	2.63	91 : 9	4.56	0.51	2.80	90 : 10	4.70	0.59
01xx-A Social Science, Psychology, and Welfare (Admin)	1.94	43 : 57	1.61	2.28	2.62	39 : 61	1.93	3.37	2.66	42 : 58	2.05	3.36
01xx-P Social Science, Psychology, and Welfare (Prof)	1.55	64 : 36	1.92	1.15	1.80	56 : 44	1.94	1.65	2.22	42 : 58	1.74	2.78
02xx-A Personnel Mgmt & Industrial Relations (Admin)	1.93	39 : 61	1.46	2.42	1.89	30 : 70	1.08	2.78	1.80	30 : 70	1.01	2.72
03xx-A General Admin, Clerical, & Office Svcs (Admin)	7.76	53 : 47	7.91	7.58	9.86	45 : 55	8.43	11.44	12.24	48 : 52	10.99	13.70
03xx-C General Admin, Clerical, & Office Svcs (Clerical)	10.90	11 : 89	2.39	19.99	5.34	15 : 85	1.53	9.52	2.41	21 : 79	0.94	4.11
03xx-T General Admin, Clerical, & Office Svcs (Tech)	3.56	25 : 75	1.73	5.52	3.73	21 : 79	1.49	6.19	2.90	26 : 74	1.39	4.65
04xx-P Natural Resources Mgmt & Bio Sci Group (Prof)	2.32	80 : 20	3.59	0.95	2.46	72 : 28	3.40	1.42	2.23	65 : 35	2.67	1.71
05xx-A Accounting and Budget (Admin)	1.86	45 : 55	1.60	2.13	2.53	37 : 63	1.77	3.37	2.81	37 : 63	1.95	3.82
05xx-P Accounting and Budget (Prof)	2.87	64 : 36	3.55	2.15	2.54	56 : 44	2.70	2.36	2.27	47 : 53	2.00	2.59

	Dec. 1992				Dec. 2002				Dec. 2012			
	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution
05xx-T Accounting and Budget (Tech)	3.28	20 : 80	1.29	5.41	2.13	21 :79	0.85	3.53	1.57	26 :74	0.75	2.51
06xx-C Medical, Hospital, Dental & Pub Health (Clerical)	0.75	19 : 81	0.27	1.25	0.61	21 :79	0.24	1.01	1.15	28 :72	0.59	1.80
0602,0680-P Medical, Hospital, Dental & Pub Health (Prof-Doctor/Dentist)	0.61	79 : 21	0.94	0.27	0.73	72 :28	1.01	0.42	1.14	64 :36	1.37	0.88
06xx-P* Medical, Hospital, Dental & Pub Health (P+0603A) (all other 06xx occs with code P + 0603 with code A*)	3.94	23 :77	1.77	6.26	4.63	27 :73	2.35	7.13	6.12	25 :75	2.82	9.96
06xx-T Medical, Hospital, Dental & Pub Health (Tech)	3.57	33 : 67	2.26	4.96	3.39	30 :70	1.95	4.98	4.18	29 :71	2.22	6.46
08xx-P Engineering And Architecture (Prof)	7.32	91 : 9	12.87	1.40	6.38	88 :12	10.76	1.57	6.07	84 :16	9.52	2.05
08xx-T Engineering and Architecture (Tech)	3.12	92 : 8	5.57	0.50	2.12	91 :9	3.71	0.38	1.55	92 :8	2.65	0.28
09xx-A Legal and Kindred (Admin)	1.20	42 : 58	0.97	1.45	1.50	35 :65	0.99	2.05	1.76	38 :62	1.23	2.38
09xx-P Legal and Kindred (Prof)	1.59	67 : 33	2.07	1.08	1.91	61 :39	2.24	1.55	2.07	55 :45	2.12	2.02
09xx-T Legal and Kindred (Tech)	1.50	22 : 78	0.63	2.43	2.52	22 :78	1.04	4.14	2.03	27 :73	1.01	3.21
11xx-A Business and Industry (Admin)	2.59	61 : 39	3.05	2.09	2.88	54 :46	2.99	2.76	2.52	52 :48	2.43	2.62
11xx-P Business and Industry (Prof)	2.02	44 : 56	1.70	2.36	1.90	39 :61	1.43	2.43	2.16	44 :56	1.75	2.64
11xx-T Business and Industry (Tech)	1.42	37 : 63	1.03	1.83	1.15	35 :65	0.77	1.57	0.93	44 :56	0.76	1.12
13xx-P Physical Sciences (Prof)	2.16	83 : 17	3.47	0.75	1.85	79 :21	2.79	0.82	1.50	73 :27	2.03	0.87
15xx-P Mathematics and Statistics (Prof)	0.83	72 : 28	1.16	0.48	0.91	68 :32	1.17	0.61	0.98	67 :33	1.23	0.69
18xx-AO Investigation (A+1896O & 1899O) (Include occs 1896 and 1899 under code O)	4.11	82 : 18	6.50	1.55	6.26	80 :20	9.55	2.65	8.00	80 :20	11.97	3.38
18xx-T Investigation (Tech)	0.77	67 : 33	1.00	0.53	1.06	50 :50	1.02	1.11	2.22	56 :44	2.32	2.09
21xx-A Transportation (Admin)	2.05	84 : 16	3.32	0.70	2.65	84 :16	4.23	0.91	2.13	83 :17	3.27	0.79
2181-2183-T Transportation (T – Pilot, Navigator)	0.18	99 : 1	0.35	0.00	0.21	98 :2	0.40	0.01	0.19	98 :2	0.35	0.01
21xx-T* Transportation (all other 21xxT)	0.23	57 : 43	0.26	0.20	0.32	49 :51	0.30	0.34	0.25	60 :40	0.27	0.22
22xx-A Information Technology (Admin)	3.45	61 : 39	4.10	2.75	4.60	60 :40	5.30	3.83	4.79	69 :31	6.17	3.19
Xxxx-P All other occupations with P code	1.34	52 : 48	1.34	1.33	1.26	56 :44	1.34	1.16	1.38	59 :41	1.53	1.21
Xxxx-A All other occupations with A code	4.65	67 : 33	6.05	3.15	3.90	63 :37	4.68	3.04	4.17	65 :35	5.05	3.14
Xxxx-T All other occupations with T code	4.70	50 : 50	4.55	4.85	6.14	57 :43	6.72	5.52	2.91	56 :44	3.03	2.76
Xxxx-C All other occupations with C code	4.11	19 : 81	1.54	6.85	1.55	27 :73	0.80	2.38	1.76	47 :53	1.53	2.02
Xxxx-O All other occupations with O code	0.21	52 : 48	0.21	0.21	0.21	52 :48	0.20	0.21	0.31	44 :56	0.26	0.37

Pay system

	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution
GS, GL, & GM combined	92.85	52 : 48	93.09	92.59	83.32	50 :50	80.11	86.84	80.70	53 :47	79.00	82.67
Senior Executive Service	0.54	87 : 13	0.91	0.14	0.49	74 :26	0.70	0.26	0.47	67 :33	0.59	0.34
VA Nurse	2.19	14 : 86	0.58	3.90	2.36	17 :83	0.78	4.11	3.23	19 :81	1.11	5.69
Other	4.42	63 : 37	5.41	3.37	13.83	70 :30	18.41	8.79	15.60	67 :33	19.30	11.29

Race/Ethnicity

	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution
American Indian/Alaskan Native	1.58	40 : 60	1.23	1.95	1.84	39 :61	1.38	2.34	1.65	38 :62	1.17	2.21
Asian & Native Hawaiian/Pacific Islander	2.84	53 : 47	2.89	2.78	3.95	52 :48	3.92	3.99	5.81	52 :48	5.64	6.00
Black/African American	16.28	30 : 70	9.50	23.53	17.34	32 :68	10.71	24.62	17.98	37 :63	12.23	24.68
Hispanic/Latino	5.09	52 : 48	5.11	5.08	6.90	55 :45	7.20	6.58	8.23	57 :43	8.70	7.68
White	73.65	57 : 43	80.68	66.13	69.32	57 :43	76.11	61.87	65.33	59 :41	71.30	58.38
Other	0.56	54 : 46	0.59	0.53	0.64	55 :45	0.67	0.60	1.01	52 :48	0.98	1.05

Supervisory status

	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution	% of Total Population	M : F % Split	Male % Distribution	Female % Distribution
Manager/Supervisor	14.87	71 : 29	20.48	8.87	12.35	67 :33	15.78	8.60	13.75	64 :36	16.37	10.71
Non-Manager/Supervisor	85.13	48 : 52	79.52	91.13	87.65	50 :50	84.22	91.40	86.25	52 :48	83.63	89.29

NOTE: OPM collected similar data on other factors--agency, bargaining unit status, disability status, duty station, law enforcement officer status, and veteran status--which are not presented in this report for sake of brevity.

Overall Summary of Snapshot Data by Year
--White-Collar (All Pay Plans) and General Schedule Total Populations

a. White-Collar Employees (All Pay Plans)
Nonseasonal Full-Time Permanent Employees in Pay Status in the Executive Branch

Snapshot Date	Total Empl	% of Total Pop	# Male Empl	# Female Empl	% Female	Avg Sal	Male Avg Sal	Female Avg Sal	Female/ Male Sal %	Pay Gap
Dec. 1992	1,529,311	100.0%	790,194	739,117	48.3%	$37,980	$44,412	$31,104	70.0%	30.0%
Dec. 2002	1,395,007	100.0%	729,869	665,138	47.7%	$58,844	$64,965	$52,128	80.2%	19.8%
Dec. 2012	1,669,640	100.0%	897,880	771,760	46.2%	$81,363	$86,432	$75,467	87.3%	12.7%

b. General Schedule (GS-GL-GM)
Nonseasonal Full-Time Permanent Employees in Pay Status in the Executive Branch

Snapshot Date	Total Empl	% of White-Collar Pop	# Male Empl	# Female Empl	% Female	Avg Sal	Male Avg Sal	Female Avg Sal	Female/ Male Sal %	Pay Gap
Dec. 1992	1,419,976	92.9%	735,619	684,357	48.2%	$36,667	$42,793	$30,082	70.3%	29.7%
Dec. 2002	1,162,327	83.3%	584,713	577,614	49.7%	$55,994	$61,614	$50,306	81.6%	18.4%
Dec. 2012	1,347,362	80.7%	709,314	638,048	47.4%	$76,432	$80,569	$71,833	89.2%	10.8%

Summary of Key Snapshot Data by Subpopulations by Year

White-Collar Employees (All Pay Plans)

Nonseasonal Full-Time Permanent Employees in Pay Status in the Executive Branch

	Dec. 1992			Dec. 2002			Dec. 2012		
	% of Total Pop	% Female	Female/ Male Sal %	% of Total Pop	% Female	Female/ Male Sal %	% of Total Pop	% Female	Female/ Male Sal %
Total population	100.0	48.3	70.0	100.0	47.7	80.2	100.0	46.2	87.3
Factors:									
Subpopulations:									
Age									
<25	2.7	69.0	90.4	1.7	50.0	94.5	1.1	48.7	92.1
25-34	20.4	55.3	77.6	12.1	48.0	93.5	16.6	45.5	95.1
35-44	32.8	50.6	75.9	27.5	49.8	80.9	22.4	45.7	91.5
45-54	30.1	42.3	68.7	38.1	48.5	81.0	33.4	46.4	86.2
55-64	12.4	41.3	63.9	18.7	43.1	74.7	22.9	47.8	83.1
65+	1.5	44.9	57.9	1.9	41.4	66.4	3.6	40.6	75.4
Population-weighted average			72.7			81.3			87.8
Agency									
Agriculture	6.0	40.6	71.4	6.0	43.5	83.3	4.5	45.1	92.7
Defense	39.7	45.6	69.2	33.0	43.3	78.0	33.7	38.8	85.2
HHS (excluding SSA in 1992)	3.1	62.5	68.9	3.6	65.2	77.6	3.6	65.8	84.4
Interior	3.5	39.7	68.9	3.5	42.5	80.2	2.9	44.0	89.5
Justice-Treasury-DHS	14.9	49.1	70.5	17.4	47.2	83.7	21.8	41.3	92.3
Transportation	4.1	26.8	69.5	7.3	28.8	78.0	3.3	26.6	86.2
VA	11.2	63.6	80.7	11.8	63.3	86.0	15.7	63.6	86.2
SSA	4.0	70.1	73.2	4.3	70.2	80.5	3.7	67.6	88.9
Other	13.5	45.5	67.9	13.0	46.9	79.5	10.9	47.2	88.1
Population-weighted average			70.8			80.6			87.8
Education									
Below High-School	1.1	63.8	79.2	0.7	67.9	86.9	0.3	66.4	91.8
High School Graduate or Equivalency	22.4	65.5	77.9	24.2	56.9	90.2	22.1	46.9	89.9
Occupational Training/Certificate	5.9	72.0	79.2	4.2	70.7	82.9	3.3	70.2	85.3
Some College (Four Years Or Less)	27.3	55.9	77.6	25.0	55.2	84.3	20.7	51.7	89.3
Bachelor's Degree	24.7	33.9	80.6	26.3	38.2	87.1	29.1	41.9	91.0
Post Bachelor	7.2	27.0	82.8	6.4	33.7	91.0	5.8	41.8	90.4
Master's Degree	8.0	30.2	83.1	9.9	36.3	89.2	14.7	43.8	90.3
Post Master	1.3	*23.9*	81.6	1.0	29.9	88.7	0.8	41.1	91.1
Doctorate Degree	1.7	18.0	87.5	2.0	25.7	91.9	2.6	38.6	92.4
Post Doctorate	0.3	12.5	87.9	0.3	21.1	89.6	0.4	34.8	91.3
Population-weighted average			79.6			87.5			90.1
Length of Service									
<5	16.9	57.3	77.2	16.2	46.2	87.5	27.0	43.9	88.7
5-9	20.8	53.1	74.1	10.4	44.2	86.5	19.5	43.2	88.1
10-14	17.9	52.3	75.2	16.8	51.0	79.8	14.7	43.1	88.0
15-19	16.1	48.7	74.7	18.5	50.8	77.4	8.0	44.3	86.7
20-24	13.1	40.3	70.6	15.2	51.3	79.1	11.0	51.0	82.0
25-29	9.1	38.3	69.0	12.5	46.7	80.4	10.2	52.0	80.8
30-34	4.2	26.4	69.0	7.5	38.4	78.5	5.9	54.5	82.2
35+	1.8	25.9	67.6	3.1	39.5	75.3	3.6	52.7	81.4
Population-weighted average			73.7			81.0			86.1
Occupational Category #1 (PATCO)									
A-Administrative	32.7	39.8	83.3	40.0	44.8	88.7	43.6	42.8	94.5
C-Clerical	15.8	86.2	108.1	7.5	82.1	111.4	5.3	69.0	110.4
O-Other White Collar	2.7	9.8	84.8	3.6	10.8	90.4	4.4	11.6	85.8
P-Professional	26.5	33.1	80.7	26.2	38.2	85.5	28.0	45.0	88.2
T-Technical	22.3	56.8	78.5	22.8	58.1	86.4	18.7	57.6	87.0
Population-weighted average			85.5			89.1			91.8
Occupational Category #2 (PATCO + Occ Family)									
00xx-A Misc (Admin)	1.5	28.8	88.2	1.8	33.4	96.6	1.8	32.5	101.7
00xx-O Misc (Other)	2.2	6.8	97.3	2.6	9.3	99.8	2.8	9.7	100.2

	Dec. 1992			Dec. 2002			Dec. 2012		
	% of Total Pop	% Female	Female/ Male Sal %	% of Total Pop	% Female	Female/ Male Sal %	% of Total Pop	% Female	Female/ Male Sal %
01xx-A Social Science (Admin)	1.9	57.0	85.1	2.6	61.4	91.5	2.7	58.4	91.4
01xx-P Social Science (Prof)	1.5	35.8	80.4	1.8	43.7	87.1	2.2	57.8	89.4
02xx-A Personnel Mgmt (Admin)	1.9	60.7	83.9	1.9	70.1	89.5	1.8	69.8	100.2
03xx-A General Admin/Clerical (Admin)	7.8	47.3	79.1	9.9	55.3	85.3	12.2	51.7	91.8
03xx-C General Admin/Clerical (Clerical)	10.9	88.6	112.2	5.3	85.0	115.3	2.4	78.9	116.7
03xx-T General Admin/Clerical (Tech)	3.6	74.9	94.1	3.7	79.1	98.8	2.9	74.2	102.1
04xx-P Natural Resources (Prof)	2.3	19.8	83.7	2.5	27.5	90.3	2.2	35.5	96.7
05xx-A Accounting & Budget (Admin)	1.9	55.4	77.3	2.5	63.4	79.9	2.8	62.7	88.7
05xx-P Accounting & Budget (Prof)	2.9	36.2	82.9	2.5	44.4	88.1	2.3	52.7	94.9
05xx-T Accounting & Budget (Tech)	3.3	79.7	99.9	2.1	79.1	102.3	1.6	74.2	103.3
06xx-C Medical/Health (Clerical)	0.7	81.1	101.8	0.6	79.1	100.9	1.1	72.4	101.8
0602-0680-P Doctor/Dentist (Prof)	0.6	20.9	96.5	0.7	27.5	98.2	1.1	35.5	92.7
06xx-P* Medical/Health (Prof-other + 0603A)	3.9	76.8	93.2	4.6	73.4	94.2	6.1	75.2	94.8
06xx-T Medical/Health (Tech)	3.6	67.2	90.6	3.4	70.0	94.8	4.2	71.4	94.6
08xx-P Engineering/Architecture (Prof)	7.3	9.2	84.0	6.4	11.7	91.8	6.1	15.6	94.9
08xx-T Engineering/Architecture (Tech)	3.1	7.7	80.0	2.1	8.6	87.9	1.6	8.3	92.5
09xx-A Legal (Admin)	1.2	58.5	80.5	1.5	65.4	89.4	1.8	62.4	102.3
09xx-P Legal (Prof)	1.6	32.9	87.4	1.9	38.7	92.1	2.1	45.0	94.1
09xx-T Legal (Tech)	1.5	78.4	97.1	2.5	78.4	101.5	2.0	73.3	105.1
11xx-A Business/Industry (Admin)	2.6	39.1	83.0	2.9	45.7	88.4	2.5	48.1	93.9
11xx-P Business/Industry (Prof)	2.0	56.4	84.4	1.9	60.8	90.5	2.2	56.4	100.5
11xx-T Business/Industry (Tech)	1.4	62.5	77.0	1.2	65.0	83.0	0.9	55.7	90.6
13xx-P Physical Sciences (Prof)	2.2	16.9	82.0	1.9	21.1	88.0	1.5	26.9	91.8
15xx-P Mathematics/Statistics (Prof)	0.8	27.8	85.0	0.9	32.3	91.1	1.0	32.5	95.0
18xx-AO Investigation (Admin + 1896&1899 O)	4.1	18.2	84.1	6.3	20.2	96.8	8.0	19.5	99.4
18xx-T Investigation (Tech)	0.8	33.2	79.7	1.1	49.9	91.0	2.2	43.6	99.4
21xx-A Transportation (Admin)	2.1	16.4	83.8	2.7	16.4	89.9	2.1	17.3	95.7
2181-2183-T Pilot/Navigator (Tech)	0.2	1.1	90.5	0.2	1.9	91.1	0.2	1.6	101.7
21xx-T* Transportation (Tech-other)	0.2	42.6	87.0	0.3	50.5	86.3	0.2	40.3	89.2
22xx-A Information Technology (Admin)	3.4	38.6	87.2	4.6	39.7	94.9	4.8	30.7	101.8
Xxxx-P All other Prof	1.3	48.1	78.6	1.3	44.0	85.4	1.4	40.6	92.0
Xxxx-A All other Admin	4.6	32.7	87.5	3.9	37.2	95.5	4.2	34.8	103.9
Xxxx-T All other Tech	4.7	50.0	85.8	6.1	42.8	96.4	2.9	43.9	96.1
Xxxx-C All other Clerical	4.1	80.6	100.6	1.6	73.1	101.1	1.8	53.3	101.9
Xxxx-O All other Other	0.2	48.5	96.0	0.2	48.1	101.1	0.3	55.8	100.3
Population-weighted average			*89.5*			*93.7*			*97.1*
Pay System									
General Schedule (GS, GL, GM)	92.9	48.2	70.3	83.3	49.7	81.6	80.7	47.4	89.2
Senior Executive Service (ES)	0.5	12.6	97.6	0.5	25.5	99.4	0.5	33.2	99.2
VA nurse [VN]	2.2	86.2	99.8	2.4	82.8	100.0	3.2	81.5	100.7
Other	4.4	36.8	69.1	13.8	30.3	82.0	15.6	33.5	88.3
Population-weighted average			*71.0*			*82.2*			*89.5*
Race/Ethnicity									
American Indian/Alaskan Native	1.6	59.8	71.0	1.8	60.7	74.8	1.6	61.9	79.2
Asian & Native Hawaiian/Pacific Islander	2.8	47.3	77.1	4.0	48.1	83.5	5.8	47.8	90.8
Black/African American	16.3	69.9	81.0	17.3	67.7	89.8	18.0	63.4	95.2
Hispanic/Latino	5.1	48.2	76.4	6.9	45.5	86.9	8.2	43.1	91.0
White	73.6	43.4	69.9	69.3	42.6	80.3	65.3	41.3	87.1
Other	0.6	45.5	69.0	0.6	44.8	78.2	1.0	48.0	90.4
Population-weighted average			*72.3*			*82.4*			*89.0*
Supervisor Status									
Manager/Supervisor	14.9	28.8	77.9	12.4	33.2	89.8	13.7	36.0	95.6
Non-supervisor	85.1	51.7	72.8	87.6	49.7	81.4	86.3	47.9	88.0
Population-weighted average			*73.6*			*82.4*			*89.1*

NOTE: OPM collected similar data on other factors--bargaining unit status, disability status, duty station, law enforcement officer status, and veteran status--which are not presented in this report for sake of brevity.

Snapshot Data by General Schedule Grade Level

GS-GL-GM nonseasonal full-time permanent employees in pay status in the Executive Branch

a. Summary for 1992, 2002, and 2012

	Dec. 1992			Dec. 2002			Dec. 2012		
	% of Total Pop	% Female	Female/ Male Sal %	% of Total Pop	% Female	Female/ Male Sal %	% of Total Pop	% Female	Female/ Male Sal %
Total GS Pop.	100.0	48.2	70.3	100.0	49.7	81.6	100.0	47.4	89.2
Grade Level									
1-3 combined	1.3	66.5	98.5	0.4	60.8	99.8	0.2	59.9	99.9
4	6.3	76.3	99.7	2.7	68.4	100.2	1.7	65.7	100.8
5	11.2	77.1	100.9	7.7	67.3	101.6	5.5	63.6	101.8
6	7.2	77.1	101.4	6.5	70.5	101.8	5.6	65.8	102.1
7	10.0	65.6	100.5	10.3	64.7	100.4	8.8	55.8	101.3
8	2.3	59.5	100.0	4.1	64.3	98.6	4.0	59.6	98.7
9	10.4	48.4	97.4	10.1	53.8	98.7	9.4	49.5	101.0
10	2.1	53.1	99.4	1.4	47.9	100.6	1.2	51.5	103.7
11	13.7	39.0	96.1	14.8	46.4	98.4	14.3	48.4	100.9
12	15.9	30.1	95.3	17.4	41.5	97.4	20.3	40.9	101.6
13	10.9	23.9	95.4	14.6	35.7	97.4	16.9	38.9	100.0
14	5.9	18.6	95.8	6.6	32.6	97.4	8.1	38.9	99.5
15	2.7	14.6	95.5	3.4	28.3	97.6	4.0	35.5	99.5
Pop.-weighted avg.			97.8			98.8			100.8

b. Detailed Data for December 2012

General Schedule (GS-GL-GM)
Nonseasonal Full-Time Permanent Employees in Pay Status in the Executive Branch
by GS Grade Level

GS Grade Level	Total Empl	% of Total Pop	# Male Empl	# Female Empl	% Female	Avg Sal	Male Avg Sal	Female Avg Sal	Female/ Male Sal %
1-3 combined	3,095	0.2%	1,241	1,854	59.9%	$29,363	$29,382	$29,351	99.9%
4	23,436	1.7%	8,040	15,396	65.7%	$33,405	$33,239	$33,492	100.8%
5	73,574	5.5%	26,817	46,757	63.6%	$37,412	$36,992	$37,653	101.8%
6	75,337	5.6%	25,733	49,604	65.8%	$42,489	$41,916	$42,787	102.1%
7	118,291	8.8%	52,231	66,060	55.8%	$47,086	$46,755	$47,347	101.3%
8	54,536	4.0%	22,026	32,510	59.6%	$53,443	$53,873	$53,151	98.7%
9	126,172	9.4%	63,669	62,503	49.5%	$56,698	$56,412	$56,989	101.0%
10	15,622	1.2%	7,584	8,038	51.5%	$64,422	$63,227	$65,550	103.7%
11	192,716	14.3%	99,389	93,327	48.4%	$68,072	$67,785	$68,377	100.9%
12	273,368	20.3%	161,655	111,713	40.9%	$82,238	$81,696	$83,021	101.6%
13	228,233	16.9%	139,491	88,742	38.9%	$100,266	$100,282	$100,240	100.0%
14	108,940	8.1%	66,558	42,382	38.9%	$121,017	$121,276	$120,609	99.5%
15	54,042	4.0%	34,877	19,165	35.5%	$145,114	$145,366	$144,656	99.5%
Total	1,347,362	100.0%	709,311	638,051	47.4%	$76,432	$80,569	$71,833	89.2%
Female avg salary as % of male avg salary - based on population-weighted avg of subpopulation avg %'s:									100.8%

Summary of Dynamic Data Findings

Nonseasonal full-time permanent employees in the Executive Branch.

a. Superior Qualification Actions, Quality Step Increases, and Promotions

General Schedule (GS) or White Collar (WC)

	1992				2002				2012			
	% of actions used for females	% of total population that are female	actions for males as % of male population	actions for females as % of female population	% of actions used for females	% of total population that are female	actions for males as % of male population	actions for females as % of female population	% of actions used for females	% of total population that are female	actions for males as % of male population	actions for females as % of female population
Superior Qualification Actions - GS*	36.4	49.1	2.7	1.6	31.3	43.6	9.1	5.4	34.9	44.8	12.6	8.3
Quality Step Increases - GS	58.0	48.3	3.10	4.58	51.8	49.8	4.78	5.18	50.7	47.5	3.11	3.53
Promotions (excluding temporary & others) - WC	58.7	48.4	4.69	7.10	51.8	48.0	5.66	6.58	50.1	46.3	3.38	3.94
Promotions (excluding temporary & others) - GS	58.8	48.3	5.00	7.63	52.4	49.8	6.48	7.21	50.4	47.5	4.05	4.55

* For superior qualification actions, the "population" eligible for possible use of the action is the population of new hires.

b. Starting Salaries

	1992			2002			2012		
	% of total new hires by subpop.	% of new hires that are female	% female / male avg salary	% of total new hires by subpop.	% of new hires that are female	% female / male avg salary	% of total new hires by subpop.	% of new hires that are female	% female / male avg salary
Total Population - White Collar	100.0	49.3	83.1	100.0	38.0	89.4	100.0	45.0	89.3
Occupational Category #1 (PATCO)									
A-Administrative	19.6	35.0	91.9	22.7	27.6	92.6	30.9	30.0	97.2
C-Clerical	23.0	77.4	107.0	7.4	74.9	105.3	9.2	60.0	102.7
O-Other White Collar	13.2	28.9	87.4	8.5	20.7	93.0	8.5	27.3	96.3
P-Professional	25.7	44.4	88.8	17.4	40.8	90.6	30.3	52.7	88.6
T-Technical	18.5	50.8	87.3	44.1	39.4	94.8	21.1	56.6	86.9
Weighted average:			93.1			94.2			92.9
Total Population - General Schedule	100.0	49.1	83.8	100.0	43.6	87.4	100.0	44.8	90.0
Occupational Category #1 (PATCO)									
A-Administrative	18.4	34.4	93.2	27.8	33.5	93.5	30.6	30.3	96.9
C-Clerical	24.4	77.3	106.8	12.5	74.3	104.4	10.5	60.6	102.1
O-Other White Collar	14.0	29.1	87.6	14.6	20.7	92.8	9.7	26.7	95.8
P-Professional	23.8	41.9	91.2	24.1	41.4	92.5	24.5	51.1	97.0
T-Technical	19.4	50.9	88.8	21.0	57.3	87.4	24.7	57.0	87.8
Weighted average:			94.4			93.2			95.1

UNITED STATES
OFFICE OF PERSONNEL MANAGEMENT

Employee Services

1900 E Street, NW
Washington, DC 20415