Causes of the Postal Service FERS Surplus – Update

December 4, 2012

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Introductory Summary

In October, the U.S. Postal Service Office of Inspector General (OIG) released a white paper entitled *Causes of the Postal Service FERS Surplus* that explored the reasons for the persistent surplus in the postal share of the Federal Employees' Retirement System (FERS) program.[1] For the paper, we asked Hay Group, the actuarial consulting firm, to investigate the causes of the surplus. Hay Group found that the FERS surplus resulted from differences between Postal Service characteristics and the characteristics of the rest of the federal government and recommended using Postal Service-specific assumptions to measure the FERS liability. Hay Group estimated that when Postal Service-specific assumptions were used, the $11.4 billion FERS surplus projected for fiscal year (FY) 2011 increased to $24.0 billion.

Since the release of the white paper, the Office of Personnel Management (OPM) has issued its annual estimate of the FERS surplus. This estimate was based on new economic and demographic assumptions adopted in July by the Board of Actuaries in charge of setting assumptions for FERS. In the new estimate, the surplus that was originally projected to be $11.4 billion decreased to $2.6 billion as of FY 2011 ($3.0 billion as of FY 2012). There were several reasons for the decline:

- The assumed rate of future interest earnings was reduced from 5.75 percent to 5.25 percent, increasing the estimated liability;
- OPM's new demographic assumptions included improvements to expected lifespans increasing the liability; and
- Actual 2011 experience for both the assets and liability were less favorable than initially assumed, resulting in an experience loss.

We asked Hay Group to update their previous estimate of the surplus to reflect the new assumptions OPM used. Hay Group also took the opportunity to update its assumptions for pay increases based on the Postal Service's latest information. The results appear in the following report. Hay Group found the projected surplus to be $12.48 billion as of FY 2012 when Postal Service-specific assumptions are used. This is an increase of more than $9 billion from OPM $3.0 billion estimate.

As we stated in the previous white paper, we support using Postal Service-specific assumptions whatever the effect on the FERS surplus as it provides a more accurate and stable estimate of Postal Service liability that is more likely to match the future

[1] U.S. Postal Service Office of Inspector General, *Causes of the Postal Service's FERS Surplus*, Report No. RARC-WP-13-001, October 13, 2012, http://www.uspsoig.gov/foia_files/RARC-WP-13-001.pdf.

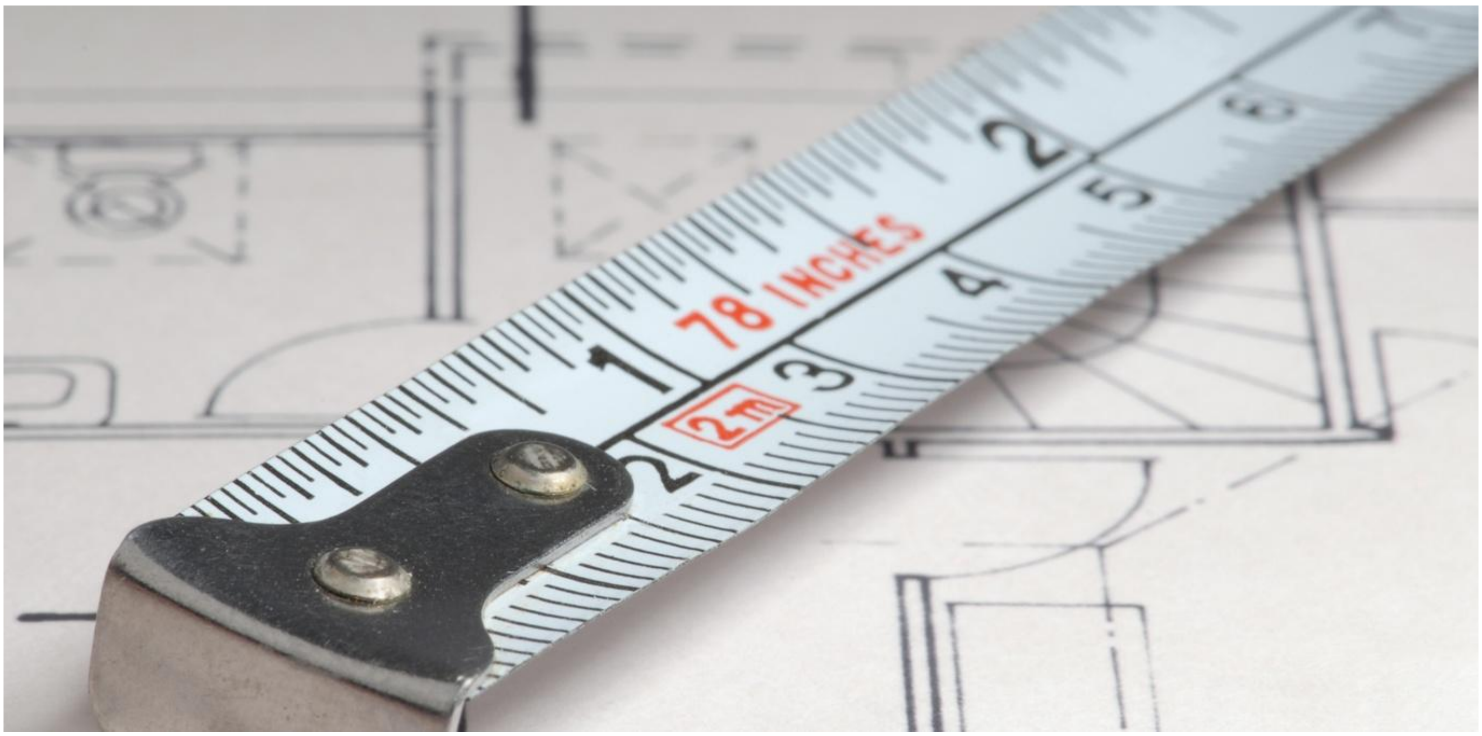
payout stream. In addition, we suggest changes to the way the surpluses in FERS are treated. There is no mechanism under current law to return surplus FERS funds once the surplus has occurred. The Postal Service's contribution rate could also be adjusted to use Postal Service-specific assumptions. The Postal Service's payments for retiree benefits should accurately reflect their ultimate costs.

December 4, 2012

U.S. Postal Service

Evaluation of the USPS Postal Service Fund for Employees Enrolled in the Federal Employees Retirement System

HayGroup®



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EXECUTIVE SUMMARY

USPS Office of Inspector General (OIG) retained Hay Group to perform an analysis of the USPS portion of the Federal Employees Retirement System (FERS).

We issued a report on October 12, 2012, that examined the effect of applying USPS-specific assumptions to the FERS valuation. It was based on 2010 census data and economic assumptions adopted by the Civil Service Retirement and Disability Fund Board of Actuaries on June 11, 2010, including an interest rate of 5.75 percent. Since we issued that report, the Office of Personnel Management (OPM) has released an updated estimate of the USPS portion of FERS based on 2011 census data and revised economic and demographic assumptions adopted by the Board of Actuaries in July 2012.

This report provides an updated measurement of the USPS portion of FERS that uses USPS-specific assumptions and is comparable to OPM's updated estimate. The economic assumptions have been updated to reflect the July changes by the Board of Actuaries, and the underlying census data has been updated to 2011. We have also incorporated more recent forecasts of USPS-salary increases and revised the annuitant mortality rates to reflect OPM's recent changes to its mortality assumptions.

Table E-1 compares our updated measurement of the FERS surplus under USPS-specific assumptions to OPM's results. As of September 30, 2011, the surplus was measured to be $11.4 billion under USPS-specific assumptions rather than $2.6 billion.

We also projected the results to September 30, 2012 to be comparable to OPM's projection. The projected surplus of $3.0 billion increases to more than $12.4 billion when remeasured using USPS-specific assumptions.

Table E-1
FERS Surplus under Different Assumptions
Amounts in $Billions

	OPM Assumptions	USPS-Specific Assumptions
Surplus Estimate as of September 30, 2011	$2.60	$11.46
Surplus Projection as of September 30, 2012	$3.00	$12.48

I. UPDATED MEASUREMENT OF SURPLUS

This report includes the following new information:

1. Revised economic assumptions
2. Updated 2011 census data
3. Revised salary increase forecasts from the USPS forecasting unit
4. Revised annuitant mortality rates

In addition, for FY2012 the actual COLA of 2.6 percent for FERS was applied in place of the long term COLA assumption.

Revised economic assumptions

OPM's most recent valuation uses the new economic assumptions the Board of Actuaries adopted in July 2012. Table I-1 shows the prior and current economic assumptions. The reduction of the interest rate had the effect of increasing the liability and reducing the surplus, although this effect was partially offset by the decrease in salary growth.

Table I-1
Economic Assumptions

Date Approved	Inflation	FERS COLA	Interest Rate	Salary Growth
6/11/2010	3.00%	2.40%	5.75%	3.75%
7/13/2012	3.00%	2.40%	5.25%	3.25%
Change	None	None	(0.50%)	(0.50%)

OPM assumed a general salary increase of 0.0 percent for FY2012 in place of the long term salary increase assumption of 3.25 percent.

Updated 2011 census data

OPM provided updated information on USPS employees enrolled in FERS and postal annuitants. More information appears in Section III.

Revised salary increase forecasts

Table I-2 shows the USPS forecast team's projected pay increases for FERS employees. The pay increases have been updated since the July 2012 forecast. The revised forecast produces a slightly larger final pay for employees who retire prior to 2017 and a slightly (less than 0.5 percent) smaller final pay for employees who retire after 2017.

Table I-2 USPS Forecast Team's Projected Pay Increases for FERS Employees		
Fiscal Year	**Weighted Average Percentage Increase (July 2012)**	**Weighted Average Percentage Increase (November 2012)**
2012	0.33%	1.33%
2013	2.27%	1.56%
2014	2.39%	2.90%
2015	2.13%	1.95%
2016	2.39%	1.85%
2017	2.52%	2.34%
2018	2.55%	2.38%
2019	2.57%	2.48%
2020	2.56%	2.51%
2021	2.55%	2.52%
2022	2.55%	2.52%

For years after 2022, the USPS combined merit and general increase rate is assumed to be 2.85%.

Revised annuitant mortality rates

The revised annuitant mortality rates were based on recent experience and projected improvements based on the rate of improvement observed over the last 10 years. The improvements are projected to 2024 and produced a static mortality table. For more information, see the discussion of assumptions in Section II.

Remeasured Estimates

Table I-3 shows the remeasured estimates of the FERS liability and surplus as of September 30, 2011. The first column ("OPM Assumptions") shows the results from the OPM valuation using FERS-wide assumptions. The second column ("USPS-Specific Assumptions") includes both USPS pay assumptions and USPS demographic assumptions based on USPS employee experience for turnover, disabilities, retirement and annuitant mortality rates.

Table I-3 shows the liability is 10.5 percent lower when measured using USPS-specific assumptions resulting in an increase in the surplus of nearly $9 billion.

This increase in the surplus is driven by the use of USPS-specific pay assumptions. In fact, if only USPS-specific pay assumptions are applied, the liability is reduced further to $74.22 billion, a 12 percent reduction, and the surplus increases to $12 billion. The use of USPS-specific demographic assumptions for active employees increases the liability whereas the use of USPS-specific mortality assumptions reduced the liability resulting in a surplus of $11.46 billion.

Table I-3
Estimate of FERS Surplus as of September 30, 2011
Based on Alternate Pay Increase and Demographic Assumptions
Amounts in $Billions

	OPM Assumptions	USPS-Specific Assumptions
Assumed Investment Return Rate	5.25%	5.25%
Assumed Post-Retirement COLA Increases	2.40%	2.40%
Salary Increase Assumptions:		
General Salary Increase	3.25%	USPS
Merit Salary Increase	OPM	USPS
Active Demographic Assumptions	OPM	USPS
Annuitant Mortality Assumption	OPM	USPS
Assets	$86.60	$86.60
Actuarial Accrued Liability	$84.00	$75.14
Surplus	**$2.60**	**$11.46**

The results as of September 30, 2011 were projected to September 30, 2012. Table I-4 shows the surplus of $3.0 billion increases by $9.48 billion to $12.48 billion when remeasured using USPS-specific assumptions.

Table I-4 Estimate of FERS Surplus as of September 30, 2012 Based on Alternate Pay Increase and Demographic Assumptions Amounts in $billions		
	OPM Assumptions	USPS-Specific Assumptions
Assets	$93.50	$93.50
Actuarial Accrued Liability	$90.50	$81.02
Surplus	**$3.00**	**$12.48**

II. METHODS AND ASSUMPTIONS

Methods

No two valuation systems prepare valuation data or value the benefits in exactly the same manner. We therefore prepared an initial valuation run using the OPM assumptions and compared the results to the published OPM valuation results. The resulting adjustment factor (ratio of Hay Group results to OPM results both using OPM assumptions) was used in subsequent valuations to develop the adjusted results. This methodology ensures that if OPM were to apply the USPS-specific assumptions, the valuation results should match the results in this report. Separate adjustment factors were developed for annuitants and employees.

Assumptions

Our initial valuation used the revised OPM assumptions for withdrawal, disability, in-service mortality, and retirement. Our subsequent valuations used USPS-specific assumptions. Development of the USPS-specific assumptions is documented in the October 2012 Hay Group report, which were based on a recent experience study.

The OPM revised assumptions included a change to the annuitant mortality rates that projected improvements in mortality (based on a study of the last 20 years experience) to 2024. We analyzed the mortality experience of USPS annuitants from 2000 to 2011 and developed a USPS-specific set of mortality rates based on that experience. These rates were then adjusted by mortality improvement factors through 2024, in parallel to the approach used by OPM.

The analysis of the USPS experience showed that there was no improvement in rates for male annuitants under age 65 (rather, the rates had increased for ages under 60 and were flat for ages 60-64), and improvement that varied from under 0.5 percent per year to about 2 percent per year for male annuitants over age 65. The improvement in rates for female annuitants was between 0.5 percent and 3 percent per year. The table below shows the average improvement factors used for FERS-wide and USPS-specific mortality rates. Overall, the mortality improvement factors for USPS were lower for males and higher for females than FERS-wide.

Table II-1
Annual Rate of Mortality Improvement

	FERS-wide		USPS	
	Males	Females	Males	Females
Under age 65	1.7%	1.2%	0.3%	1.9%
Age 65 & over	1.4%	0.8%	1.3%	1.3%
Ages 55-90	2.0%	1.2%	1.0%	1.5%

The combined impact of using USPS experience and USPS mortality improvement factors resulted in life expectancies for male USPS annuitants that are 1-2 years shorter than FERS-wide at ages 55 to 65 and longer for ages 75 and older. For female USPS annuitants the life expectancy is longer than FERS-wide at all ages, with the difference about 1 year at age 65.

Actuarial Cost Method

We used the Aggregate Entry Age Cost Method to determine the Actuarial Liability. Under this method the Actuarial Liability is determined as the Present Value of Benefits less the Present Value of Future Normal Costs.

Normal Cost Rate

The revised OPM measurement uses a higher Normal Cost rate as a result of the change in assumptions. Therefore in determining the present value of future contributions, we used the revised FERS-wide Normal Cost rate based on a FERS-wide new entrant population (prepared by OPM).

As the new Normal Cost rate has not yet been published in the Federal Register, USPS, along with other agencies, continue to be charged the rate of 11.9 percent of pay in FY2013.

III. DATA

We received group data summaries from OPM which contained average pay and the number of members in individual age and service cells by gender and retirement system group. The data was prepared for use in Hay Group's valuation system (PVL) and the total number of records compared to headcounts provided by USPS. The totals were consistent.

We received USPS annuitant records in single age summaries by gender, type of benefit, type of retirement, and retirement system.

Table III-1
USPS FERS Employees

Retirement Group	Gender	Number	Average Pay
FERS Elect 1987	Male	1,217	$59,664
FERS Elect 1987	Female	949	$58,299
FERS Elect 1998	Male	674	$61,693
FERS Elect 1998	Female	470	$61,355
FERS Automatic	Male	269,531	$56,092
FERS Automatic	Female	198,158	$54,908
Total		471,000	$55,621

Table III-2
USPS FERS Employees

Age Nearest Birthday	**Closest whole year of service**							
	<5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Total
15 - 19	1	0	0	0	0	0	0	1
20 - 24	229	55	0	0	0	0	0	284
25 - 29	2,336	3,938	64	0	0	0	0	6,338
30 - 34	3,851	11,032	4,448	64	0	0	0	19,394
35 - 39	3,569	11,521	15,418	5,477	70	0	0	36,055
40 - 44	4,015	12,594	20,906	17,488	5,462	383	0	60,848
45 - 49	4,104	13,052	20,100	18,843	20,647	16,496	244	93,486
50 - 54	3,560	11,777	20,282	17,566	21,967	32,930	3,389	111,472
55 - 59	2,316	7,607	15,526	15,580	16,162	24,496	3,771	85,458
60 - 64	1,110	3,811	7,676	9,532	8,670	12,089	1,944	44,833
65 - 69	338	1,052	1,965	2,300	2,121	2,525	486	10,786
70 - 74	76	189	389	393	353	431	81	1,911
75+	3	13	21	24	32	33	8	134
Total	25,508	76,641	106,795	87,267	75,484	89,383	9,923	471,000

IV. ACTUARIAL CERTIFICATION

USPS Office of Inspector General (OIG) retained the Hay Group to perform an analysis of the USPS portion of the Civil Service Retirement and Disability Fund (CSRDF). The scope of this assignment was limited to the Federal Employees Retirement System. Use of these results for other purposes may not be appropriate.

This analysis has been conducted in accordance with generally accepted actuarial principles and practices.

The results shown in this report are reasonable actuarial results. However, a different set of results could also be considered reasonable actuarial results. The reason for this is that actuarial standards of practice describe a "best-estimate range" for each assumption, rather than a single best-estimate value. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The actuaries certifying to this report are members of the American Academy of Actuaries and other professional actuarial organizations, and meet the General Qualification Standards of the American Academy of Actuaries for purposes of issuing Statements of Actuarial Opinion.

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