



OFFICE OF
**INSPECTOR
GENERAL**
UNITED STATES POSTAL SERVICE

Using U.S. Postal Service-Specific Assumptions for Calculating the Retiree Health Care Liability

Management Advisory

September 27, 2013

Report Number FT-MA-13-022

September 27, 2013



OFFICE OF
**INSPECTOR
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UNITED STATES POSTAL SERVICE

HIGHLIGHTS

Using U.S. Postal Service-Specific Assumptions for Calculating the Retiree Health Care Liability

Report Number FT-MA-13-022

BACKGROUND:

The Federal Employees Health Benefits program offers health insurance to employees and retirees of the U.S. Postal Service and federal agencies. The Postal Service, employees, and retirees contribute to the program for future benefits. The U.S. Office of Personnel Management (OPM) administers the program.

As of September 30, 2012, the OPM projected a \$47.84 billion retiree health care unfunded liability. The U.S. Postal Service Office of Inspector General previously analyzed Postal Service funding levels and compared them to federal and state governments, the military, and corporations. Those comparisons supported that the Postal Service funded its retirement liabilities at a substantially higher level than the other organizations.

Our objective was to review the assumptions used for the Postal Service's retiree health care liability calculation and determine what effect those assumptions may have on the retiree health care liability calculation estimate.

WHAT THE OIG FOUND:

Postal Service employees have distinguishing employee characteristics (termination, retirement, disability, death, life expectancy, and health care plan elections) that the OPM does not take into consideration when applying actuarial assumptions. These characteristics, as well as other non-employee factors, impact the retiree health care liability calculation. Currently, the OPM uses the same actuarial assumptions for Postal Service and federal employees without regard to the characteristic differences between them.

If the retiree health care liability was calculated using Postal Service-specific assumptions, the liability would increase by \$2.34 billion, from \$93.58 billion to \$95.92 billion, and the Postal Service could achieve a more accurate liability estimate that more closely aligns with future benefits.

WHAT THE OIG RECOMMENDED:

We recommended management coordinate with the OPM to modify the future retiree health care liability calculation to use actuarial assumptions specific to the Postal Service.

[Link to review the entire report](#)



September 27, 2013

MEMORANDUM FOR: JOSEPH A. CORBETT
CHIEF FINANCIAL OFFICER AND
EXECUTIVE VICE PRESIDENT

A rectangular box containing a handwritten signature in cursive that reads "John E. Cihota". A small yellow question mark icon is located in the top right corner of the box.

FROM: John E. Cihota
Deputy Assistant Inspector General
for Financial and Systems Accountability

SUBJECT: Management Advisory Report – Using U.S.
Postal Service-Specific Assumptions for Calculating
the Retiree Health Care Liability
(Report Number FT-MA-13-022)

This report presents the results of our review of Using U.S. Postal Service-Specific Assumptions for Calculating the Retiree Health Care Liability (Project Number 13BG015FT002).

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Denice M. Millett, director, Finance, or me at 703-248-2100.

Attachment

cc: Corporate Audit and Response Management

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Introduction

This report presents the results of our self-initiated review of Using U.S. Postal Service-Specific Assumptions for Calculating the Retiree Health Care Liability (Project Number 13BG015FT002). Our objective was to review the assumptions used for the Postal Service's retiree health care liability calculation and determine what effect those assumptions may have on the retiree health care liability calculation estimate. See [Appendix A](#) for additional information about this review.

The Federal Employees Health Benefits (FEHB) program offers health insurance to employees and retirees of the Postal Service and federal agencies. The Postal Service, employees, and retirees contribute to the FEHB program for future benefits. The U.S. Office of Personnel Management (OPM) administers the FEHB program and reported that, as of September 30, 2012, the Postal Service had an unfunded liability of \$47.84 billion for its retiree health care benefits. The U.S. Postal Service Office of Inspector General (OIG) previously analyzed funding levels and provided comparisons to the federal government, military, state governments, and corporations. Those comparisons supported the Postal Service's funding of its retiree health care liability at 49 percent.

This report focuses on the calculation behind the retiree health care liability. Specifically, we wanted to identify whether there were characteristics of Postal Service employees that distinguish them from other federal employees to the extent that those characteristics impact the retiree health care liability. To assist in answering our objective, the OIG contracted with Hay Group, an independent actuarial firm with expertise in Postal Service retiree health care benefits.

Conclusion

Demographic differences between Postal Service and other federal employees impacted the calculation of the retiree health care liability estimate. Specifically, Postal Service employees have distinguishing employee characteristics (termination, retirement, disability, death, life expectancy, and health care plan elections) that the OPM does not take into consideration when applying actuarial assumptions. When calculating the retiree health care liability using actuarial assumptions specific to the Postal Service, the liability is increased by \$2.34 billion. Using assumptions that more closely align with Postal Service employees causes the retiree health care liability to increase from \$93.58 billion to \$95.92 billion.

We believe the Postal Service's retiree health care liability should be calculated using actuarial assumptions specific to Postal Service employees. This approach provides a more accurate estimate of retirement liabilities that are more likely to match future retirement benefits actually paid.

Postal Service-Specific Assumptions

Characteristic and demographic differences between Postal Service employees and other federal employees impact the projected retiree health care liability. Specifically:

- The demographic characteristics and career patterns of Postal Service employees are different from those of federal employees. Postal Service employees are less likely to leave their positions and withdraw from the health care system, less likely to take early retirement, yet more likely to die while employed or retire on disability. The overall effect increases the retiree health care liability.
- The OPM projected improved mortality rates for federal employees. However, when considering only Postal Service employees, the mortality improvements for retired men ages 55 to 64 were significantly lower at 0.3 percent compared to the OPM's projected 1.7 percent. Overall, the mortality improvement for retired men was 1 percent for Postal Service employees compared to the OPM's 2 percent projection. For retired females, the mortality improvement was slightly higher at 1.5 percent for Postal Service employees compared to the OPM's 1.2 percent projection. The combined effect of these differences reduces the retiree health care liability.
- Postal Service employees have a higher enrollment in family health care plans versus federal employees, prompting an increase in the retiree health care liability.

We also identified other factors that impact the retiree health care liability but are not directly related to employee characteristics or demographics:

- Actual investment returns on retiree health care assets have been lower than expected and have increased the retiree health care liability. In September 2011, the assumed investment rate for retiree health care assets was reduced from 4.9 percent to 4.7 percent. Interest rates have a dynamic effect on retiree health care assets and the projected liability. As interest rates rise, liabilities decrease. Conversely, when interest rates lower, liabilities increase. Recent slight rises in interest rates have bolstered corporate retirement assets and reduced liabilities. This trend may also reduce the Postal Service's retiree health care liability in the future.
- The OPM captures per capita claim costs and uses trend rates¹ to project future health care costs. In October 2011, the short-term trend rates were lowered while the long-term trend rates increased. Combined, the health care claim costs and trend rates reduced the retiree health care liability.

¹ Trend rates are an actuarial assumption expressed in a percentage based on the Getzen model developed by the Society of Actuaries.

To review the retiree health care liability, we analyzed demographic experiences,² life expectancies, investment returns, health care claim costs, health care trends, and health care plans using census data on Postal Service employees and retirees provided by the OPM.³ We concluded that some characteristics and demographics of Postal Service employees differ from federal employees and these differences impact the retiree health care liability. When calculating the retiree health care liability, the OPM applies actuarial assumptions to Postal Service employees and federal employees equally, without regard to the characteristic differences.

We recalculated the Postal Service's retiree health care liability and found that the combined effect of the characteristic and demographic differences (and other factors) increases the retiree health care liability by \$2.34 billion. Using the OPM's assumptions, the retiree health care unfunded liability was \$47.84 billion; while using Postal Service-specific assumptions, the retiree health care unfunded liability would be \$50.18 billion. See [Attachment A](#) for further information on the characteristic differences and adjusted calculations for retiree health care. See [Appendix B](#) for other impact calculations.

The Postal Service's employee population is large enough to support the development of Postal Service-specific actuarial assumptions, which should be used to calculate the Postal Service's retiree health care liability. Adjusting actuarial assumptions for Postal Service employees will provide a more accurate estimate of the Postal Service's retiree health care liability. Additionally, this approach would better align the estimated retiree health care liability with future retiree health care benefits paid to Postal Service retirees.

[Current Legislation](#)

Congress has introduced several bills, which address the Postal Service's retiree health care liability:

- *Postal Reform Act of 2013* (S. 1486), introduced on August 1, 2013, would eliminate the current prefunding requirement for retiree health care and replace it with a less aggressive 40-year amortization of the liability. Additionally, it would grant the Postal Service the authority to pay premiums for current retirees from the Postal Service Retiree Health Benefit Fund.
- *Postal Reform Act of 2013* (H.R. 2748), introduced on July 19, 2013, would eliminate prefunding requirements for the retiree health care liability and grant access to the Postal Service Retirement Health Benefits Fund beginning October 1, 2014.
- *Innovate to Deliver Act of 2013* (H.R. 2690), introduced on July 16, 2013, would modify the prepayment schedule for funding the retiree health care liability.

² Demographic experiences include termination, retirement (including early retirement), disability, and death.

³ Most recent census data is from September 30, 2011.

- *Postal Service Protection Act of 2013* (S.316), introduced on February 13, 2013, would eliminate prefunding requirements for the retiree health care liability.
- *Postal Service Protection Act of 2013* (H.R. 630), introduced on February 13, 2013, would eliminate prefunding requirements for the retiree health care liability.

We will continue to monitor the legislative activity as part of our ongoing analysis.

Recommendation

We recommend the executive vice president, chief financial officer:

1. Coordinate with the Office of Personnel Management to modify the future retiree health care liability calculation to use actuarial assumptions specific to the Postal Service.

Management's Comments

Management agreed with the finding and recommendation. Management stated they are ready to assist the OPM; however, management understands that OPM's position, under current law, is that OPM does not have the authority to change the calculation of the Postal Service's liability. Management will continue to support pending legislation that would direct the OPM to use Postal Service-specific actuarial assumptions in calculating the Postal Service's liability. See [Appendix C](#) for management's comments in their entirety.

Evaluation of Management's Comments

The OIG considers management's comments responsive to the recommendation and management's corrective actions should resolve the issue identified in the report. The OIG considers the recommendation significant; however, since management's corrective actions are ongoing and subject to legislative action, the OIG will close the recommendation upon issuance of the report.

Appendix A: Additional Information

Background

The FEHB program includes a variety of health care plans offered to Postal Service employees and federal agencies for self-only or family coverage. Eligible employees, family members, and survivors may continue health care coverage in the FEHB program upon retirement. For retiree health care benefits, the OPM administers the Postal Service Retiree Health Benefit Fund. By law,⁴ the Postal Service is required to fully fund its retiree health care liability by 2016. The Postal Service contributes up to 75 percent⁵ of the health care premium and the retiree contributes the remaining share.

To account for future retiree health care benefits, a liability is estimated and disclosed in the financial statements. The OPM calculates the retiree health care liability using actuarial assumptions for demographic experiences,⁶ life expectancies, investment returns, health care claim costs, health care trends, and health care plans. Changes in the economic climate or demographics can alter the liability from year to year. Understandably, actuarial assumptions will never equal the actual experiences, resulting in actuarial gains or losses. In recent years, lower interest rates and longer life spans have increased the liability.

The OPM provides an annual estimate the retiree health care assets and liability for the Postal Service. The assets include actual contributions, plus interest earned on those contributions, less benefits paid to retirees. The liability includes projections of future benefits paid to retirees, less expected future contributions. A surplus exists when the assets exceed the estimated liability. Conversely, an unfunded liability exists when the estimated liability exceed the assets.

The OIG has previously offered a variety of recommendations to assist the Postal Service in controlling expenses and decreasing future losses caused by funding the retiree health care liability. The Postal Service continues to work with Congress to develop legislation to address the comprehensive issues identified in our prior reports.

Objective, Scope, and Methodology

Our objective was to review the assumptions used for the Postal Service's retiree health care liability calculation and determine what effect those assumptions may have on the retiree health care liability calculation estimate.

⁴ *Postal Accountability and Enhancement Act of 2006*, Public Law 109-435.

⁵ The contribution is capped at 72 percent of the weighted average premium of all FEHB health care plans; however, if enrolled in a plan with a premium lower than the average, the Postal Service contributes 75 percent of the premium.

⁶ Demographic experiences included termination, retirement (including early retirement), disability, and death.

To achieve our objective we:

- Reviewed prior OIG and Government Accountability Office reports.
- Contracted with Hay Group, an independent actuarial firm with expertise in the Postal Service's retiree health care liability.
- Considered proposed legislation and current news articles.

We conducted this review from January through September 2013 in accordance with the Council of the Inspectors General on Integrity and Efficiency, *Quality Standards for Inspection and Evaluation*. We discussed our observations and conclusions with management on September 11, 2013, and included their comments where appropriate. We did not rely on computer-generated data to support the opinions and conclusions presented in this report.

Prior Audit Coverage

Since 2010, we have issued a series of reports discussing the retiree health care benefits and how the Postal Service pays more than its fair share to the federal government.

- *U.S. Postal Service Alternative Health Care Plan Proposal* (Report Number [FI-MA-12-014](#), dated August 22, 2012).
- *Pension and Retiree Health Care Funding Levels* (Report Number [FT-MA-12-002](#), dated June 18, 2012).
- *Leveraging Assets to Address Financial Obligations* (Report Number [FF-MA-11-118](#), dated July 12, 2011).
- *Substantial Savings Available by Prefunding Pensions and Retirees' Health Care at Benchmarked Levels* (Report Number [FT-MA-11-001](#), dated November 23, 2010).
- *Summary of Substantial Overfunding in Postal Service Pension and Retiree Health Care Funds* (Report Number [FT-MA-10-002](#), dated September 30, 2010).

Appendix B: Other Impact

Recommendation	Impact Category	Amount (in billions)
1	Data Integrity ⁷	\$2,340,000,000

As of September 30, 2012, the OPM projected a \$47.84 billion unfunded liability for the Postal Service's retiree health care benefits. Using Postal Service-specific actuarial assumptions, the unfunded liability would be \$50.18 billion, resulting in a \$2.34 billion increase in the unfunded liability.

⁷ Validation of the consistency, accuracy, and completeness of data used by the Postal Service. Data used to support management decisions that is not fully supported or completely accurate. This can be the result of flawed methodology; procedural errors; or missing or unsupported facts, assumptions, or conclusions.

Appendix C: Management's Comments

JOSEPH CORBETT
CHIEF FINANCIAL OFFICER
EXECUTIVE VICE PRESIDENT



September 26, 2013

JUDITH LEONHARDT
DIRECTOR, AUDIT OPERATIONS

SUBJECT: Draft Management Advisory Report—Using U.S. Postal Service-Specific Assumptions for Calculating the Retiree Health Care Liability (Project Number 13BG015FT002)

Thank you for the opportunity to review and comment on the subject draft management advisory report. Management appreciates the efforts the Office of Inspector General (OIG) has taken with respect to assumptions used to calculate this portion of our financial liability.

Management agrees with the findings, recommendations, and monetary impact identified in this draft.

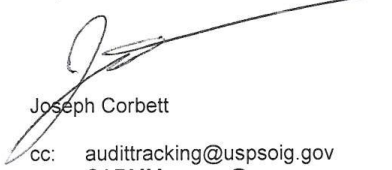
Recommendation:

We recommend the executive vice president, chief financial officer:

1. Coordinate with the Office of Personnel Management to modify the future retiree health care liability calculation to use actuarial assumptions specific to the Postal Service.

Management agrees that the Postal Service's liability for Retiree Health Benefits (RHB) should be calculated using demographic assumptions specific to the Postal Service. We stand ready to assist the Office of Personnel Management (OPM) in developing this calculation by providing any necessary information. However, it is our understanding that OPM's position is that it does not have the authority under current law to change the calculation of the Postal Service's liability. Therefore, management continues to support pending legislation that would direct OPM to use postal-specific assumptions in calculating the Postal Service's liability.

Management does not believe this report contains any proprietary or business information and may be disclosed pursuant to the Freedom of Information Act.



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Attachment A. Hay Group Report – Retiree Health Care – May 9, 2013

May 9, 2013

U.S. Postal Service

Valuation of Post-Retirement
Medical Liabilities



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1. Actuarial Certification

The USPS Office of Inspector General (OIG) retained Hay Group to perform an analysis of the USPS retiree medical benefits for current and future retirees enrolled in the Federal Employees Health Benefit Program (FEHBP). 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.

A handwritten signature in black ink that reads "Sanjit Puri". The signature is written in a cursive, slightly slanted style.

Sanjit Puri
Associate of the Society of Actuaries
Member of the American Academy of Actuaries

A handwritten signature in black ink that reads "Grady Catterall". The signature is written in a cursive, slightly slanted style.

Grady Catterall
Fellow of the Society of Actuaries
Member of the American Academy of Actuaries



2. Executive Summary

The United States Postal Service (Postal Service or USPS) Office of Inspector General (OIG) retained Hay Group to perform an analysis of the USPS retiree medical benefit liabilities, as of September 30, 2012, for eligible current and future retirees and their eligible dependents who are enrolled in the Federal Employees Health Benefit Program (FEHBP).

Hay Group conducted an actuarial investigation (also referred to as an experience analysis or study) on the USPS portion of the FEHBP population in 2010 to see how it differed from the total FEHBP population. Since then the focus of our work has been on estimating the impact on USPS's retiree medical benefit funding using the resulting alternative, USPS-specific actuarial assumptions to measure the liabilities/costs. These liabilities/costs have traditionally been measured by Office of Personnel Management (OPM) actuaries utilizing the same actuarial assumptions used to value the system-wide population in FEHBP.

Because of the experience study of the USPS FEHBP population performed in 2010, we are now in a position to perform a comparison between OPM's USPS retiree medical liability calculation using actuarial assumptions for the entire FEHBP population and that liability using USPS-specific assumptions. This analysis determines the extent to which the OPM actuarial assumptions and methodology understate or overstate USPS's retiree medical liabilities. A change in the USPS's retiree medical liabilities and its required annual contribution to the Postal Service Retiree Health Benefits Fund (PSRHBF)¹ could have a significant financial impact on the USPS.

In an effort to understand and quantify the Postal Service's true retiree medical benefit liabilities, the OIG has requested that Hay Group calculate the USPS's retiree medical benefit liabilities using USPS-specific assumptions.

This report of USPS retiree medical benefit liabilities is the first of its kind that Hay Group has provided to the OIG. Unlike the valuation of USPS retiree medical benefit liabilities performed annually by the OPM, which uses assumptions applicable to all Federal enrollees, this report prepared by Hay Group calculates the USPS liabilities using USPS-specific demographic and mortality assumptions developed from the experience study we performed in 2010. This report also includes the family coverage election rates based on actual USPS experience. This assumption affects the current claim costs paid by USPS and the number of future survivors under the USPS plan. However, this report retains OPM's most recent assumptions for the

¹ Currently the PSRHBF has assets in excess of the present value of future costs for current annuitants but less than the liability for current and future annuitants.



inflation rate (at 2.5%), the discount rate (at 4.70%), and the health care claim costs and trend rates also known as the accounting assumptions.

Based on the accounting assumptions and those set forth in this report, as of September 30, 2012, the USPS retiree medical benefit liability is \$95.92 billion, as compared to OPM's calculation of \$93.58 billion in USPS liabilities as of the same measurement date.

Table 2-1 below summarizes our finding as of September 30, 2012. It shows the actuarial accrued liability, the assets in the PSRHBFB and the unfunded liability. As the data shows, the accrued liability is higher by \$2.34 billion using the USPS-specific assumptions.

Table 2-1 Post Retirement Medical Valuation as of September 30, 2012 (Amounts in \$ billions)		
	OPM Assumptions	USPS-Specific Assumptions
Discount Rate	4.70%	4.70%
Actuarial Accrued Liability	\$93.58	\$95.92
Assets	\$45.74	\$45.74
Unfunded Accrued Liability	\$47.84	\$50.18

This report contains the development of USPS's retiree medical benefit liability and provides additional information. The remainder of this report consists of the following sections:

- 3. Results and Analysis
- 4. Actuarial Assumptions and Methodology
 - 4.1. USPS Demographic Experience Study (2010)
 - 4.2. Mortality Analysis
 - 4.3. Health Care Assumptions
 - 4.4. Data

Appendix A: Applicable FEHBP Plan Provisions



3. Results and Analysis

The table below shows the impact of the USPS-specific assumption on the accrued retiree benefit liability.

Changing the demographic assumptions (withdrawal rates and retirement rates) from OPM assumptions to the assumptions developed by Hay Group, based on actual USPS experience, resulted in an increase in the liability of \$2.81 billion.

The mortality rates also were changed to reflect the actual USPS experience. This change resulted in a decrease in the liability of \$0.79 billion.

The Health Care Plan election rate (Single vs. Family) was changed to reflect actual USPS experience. This resulted in an increase in the liability of \$0.32 billion.

Table 3-1 Post Retirement Medical Valuation as of September 30, 2012 Based on USPS-Specific Demographic Assumptions (Amounts in \$ billions)		
	Actuarial Accrued Liability	Percent Change
September 30, 2012 OPM valuation	\$93.58	
Change due to USPS-specific withdrawal and retirement rates	\$2.81	3.0%
Change due to USPS-specific mortality rates	(\$0.79)	-0.8%
Change due to USPS-specific plan election	\$0.32	0.3%
September 30, 2012 USPS-Specific Valuation	\$95.92	2.5%

Based on the above analysis, if USPS were to adopt the actuarial assumptions based on its actual experience the actuarial accrued liability would be \$95.92 billion, which would be \$2.34 billion higher than under the OPM assumptions.

This would increase the unfunded accrued liability by \$2.34 billion to \$50.18 billion.

Our studies indicate that OPM should use a more accurate assumption set for calculating the USPS liability. That is, our review of the likely future experience of the USPS population tells us that this population has had, and is expected to have into the future, significantly different experience than OPM assumes in its liability/cost measurements.



4. Actuarial Assumptions and Methodology

Valuation 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 as of September 30, 2011. Because our replication of OPM valuation results was within 0.5% of OPM's results but did not match them exactly, we have used a 0.5% factor to adjust our results. This methodology ensures that if OPM were to apply the USPS-specific assumptions, the valuation results should match the results in this report.

Our initial, baseline valuation used the latest OPM valuation assumptions for withdrawal, disability, retirement, and mortality. The OPM values are based on the valuation conducted as of September 30, 2011 rolled forward using standard actuarial techniques. Hay Group's valuation, as set forth in this report, uses USPS-specific assumptions (demographic, mortality and health plan election rates). Development of these USPS-specific assumptions was based on the experience study conducted by Hay Group in 2010 (as discussed in this report).

OPM Assumptions

Even though Hay Group's valuation uses USPS-specific assumptions, we have retained the use of the most recent economic and health care cost and trend assumptions used by OPM for its valuation, as described below.

OPM's Economic Assumptions

These assumptions include rates of inflation used as an input to the Getzen model to calculate the health care trend rate, and the Discount Rate used in developing the Accrued Liability. (Under 5 USC 8909a(d), the interest rate or discount rate and the inflation rate follows the accounting assumptions.)

Table 4.0-1 shows the economic assumptions used by OPM for its valuation, and used for Hay Group's valuation using USPS-specific demographic, mortality and health plan election assumptions.

Inflation	2.50%
Accounting Discount Rate	4.70%

For comparison purposes, Table 4.0-2 shows the prior and current economic assumptions. The reduction of the interest rate had the effect of increasing the liability, which was counteracted by a reduction in the short-term expected healthcare inflation described in the following sub-section.



The inflation assumption shown in the above table is used an input to the Getzen model to develop health care trend rates.

Valuation Date	Inflation	Interest Rate
9/30/2010	2.40%	4.90%
9/30/2011	2.50%	4.70%
Change	0.10%	(0.20%)

OPM's Health Care Assumptions

The health care assumptions include the per capita claim costs and the trend rates used to project the per capita claim costs into the future. Both of these assumptions used in Hay Group's valuation were based on OPM's September 30, 2011 valuation. For the 2011 valuation OPM lowered the short-term trend rates to more accurately reflect the emerging FEHBP experience. The table below shows the short-term trend rates used in the 2010 and 2011 valuations. The long-term trends used by OPM were calculated using the broadly used Getzen model developed by the Society of Actuaries. Due to the increase in the inflation, which is an input to the model, the ultimate trend rate was increased from 4.35 percent, used in the 2010 valuation, to 4.45 in the 2011 valuation.

Year	2011 Valuation	2010 Valuation
2011	3.85%	5.50%
2012	3.70%	5.60%
2013	4.80%	6.20%
2014	5.23%	6.30%
2015	5.67%	6.39%
2020	6.49%	6.21%
2025	6.36%	6.06%
2030	6.08%	5.93%
2035	5.96%	5.81%
2040	5.54%	5.45%
2045	5.36%	5.26%
2050	5.24%	5.14%
2055	5.15%	5.05%



Year	2011 Valuation	2010 Valuation
2060	5.07%	4.97%
2065	5.01%	4.91%
2070	4.96%	4.86%
2075	4.87%	4.77%
2080	4.63%	4.53%
Ultimate in 2084	4.45%	4.35%

Eventhough the ultimate trend rate and trend rates beyond 2015 are higher in the 2011 valuation, the short term trend rates are considerably lower and therefore, the new trend rates led to a reduction in the accrued liability.

OPM’s Annuitant Mortality Rates

The annuitant mortality rates developed by OPM were based on a study of the last 20 years’ experience and projected improvements based on the rate of improvement observed over the last 10 years. The improvements were projected to 2024 to produce a static mortality table. For more information, see the discussion in section 4.2 of this report.

OPM’s Demographic Assumptions

These assumptions include the set of rates that predict certain events occurring to a group of employees or annuitants. Events of significance to a retirement system are those that result in a commencement or termination of a benefit payment. The events affecting active employees include reasons for leaving the system such as retirement, becoming disabled, terminating service, or death. The events affecting annuitants include death. If an annuitant were to return to service, or if a disabled annuitant were to recover, the benefit payments to the annuitant would stop.

The demographic assumptions used were:

- Withdrawal rates
- Normal retirement rates
- Involuntary retirement rates
- Disability retirement rates
- Early retirement rates
- Employee death rates

It is general practice to introduce some degree of conservatism in setting actuarial assumptions. However, the degree of conservatism varies widely among retirement systems. Some systems



set assumptions so that the retirement plan contributions will be at least as great as the contributions needed in the most adverse foreseeable circumstances. Other systems set assumptions that are close to the actual experience but conservative enough to protect against small deviations from past experience.

OPM conducts experience studies periodically and updates the demographic assumptions upon completion of the experience study and development of recommended assumptions, reviewed by the Board of Actuaries.

Funding Method

The funding forecast assumes that USPS retains the PSRHBF assets, with the assets restricted to Special Issue government bonds. These are the same asset classes in which the Federal Employees Retirement System (FERS) and Civil Service Retirement System (CSRS) funds are invested.



4.1. USPS Demographic Experience Study (2010)

Experience gains (losses) can occur when demographic experience is different than expected. Hay Group conducted an actuarial investigation (“Experience Analysis”) on the USPS population in 2010 to see how it differed from the total FEHBP population. Individual data on all members employed by USPS were gathered for nine annual snapshot dates, covering eight years of elapsed time. Also, an additional file was provided for each year that documented the Nature of Action for any active employee who separated between the snapshot dates.

A history for each member in the study was created for active employee’s status on each of the nine snapshot dates. If the member was not yet hired, the status was blank. If the member was actively employed or had separated, then a code was used to indicate the status of that member. In the case of members who terminated during the study and then were rehired, the record indicated active status in the earlier years then a termination status up until the member was rehired. The first snapshot date following rehired then indicated that the member was active.

By stringing together the statuses for each employee, we were able to summarize all actual and expected occurrences in the data plus counts of all members exposed to the valuation decrements. These actual counts, expected counts, and exposure were then compiled and analyzed to compare to the OPM valuation assumptions, as well as develop USPS-specific assumptions.

All USPS-specific rates were developed to be consistent with OPM rates. For example, if the OPM rates were age and service based, then the USPS rates were developed to mirror the age and service based rate format.

The actuarial investigation reviewed the following elements:

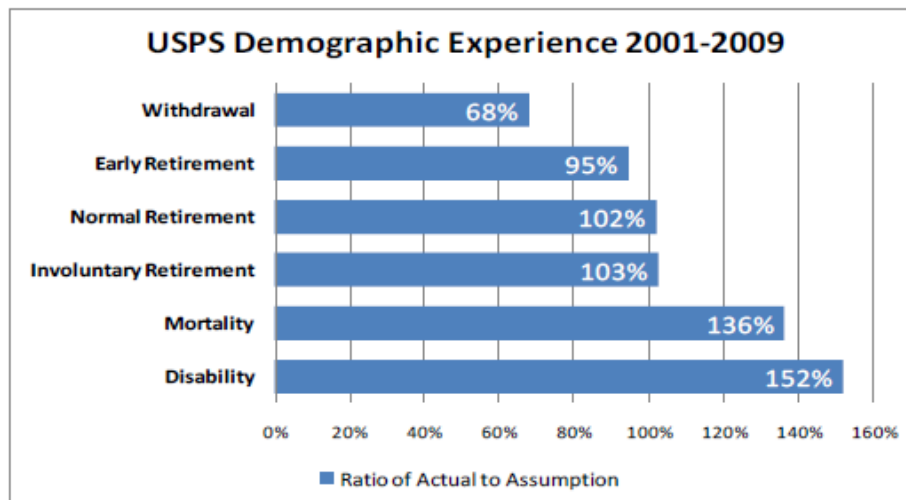
- Distribution of new entrants by age, gender, and service
- Withdrawal rates
- Normal retirement rates
- Involuntary retirement rates
- Disability retirement rates
- Early retirement rates
- Employee death rates

Development of demographic actuarial assumptions begins with the analysis of actual experience to expected experience, and the calculation of the actual-to-expected ratio. The actual-to-expected ratio gives a measure of how closely the assumption predicted what actually happened. If the actual-to-expected ratio is greater than 100 percent, then the actuarial assumption under-



predicted the number of occurrences; if the actual-to-expected ratio is less than 100 percent, then the assumption over-predicted.

Figure 4.1-1 – Comparison of USPS Demographic Experience to OPM Assumptions



The above chart shows that the USPS withdrawal (voluntary turnover) rate was materially lower than assumed. When the actual rate of withdrawal is lower than assumed, if all other assumptions are met, more employees remain employed and a higher percent of employees vest in their benefits, resulting in a higher cost and higher liability and therefore an actuarial loss.

The actual retirement rates overall were in line with the overall OPM retirement assumption, with the exception that the early retirement rate experience was slightly lower than assumed.

The in-service mortality (active mortality) rate was materially higher than the assumption; however OPM includes margin for expected mortality improvement in its valuation assumption. Moreover, this assumption has the smallest impact on liabilities for active employees of those shown above.

The actual rate of disability retirement was over fifty percent higher than assumed.

To determine the effect of using USPS-specific demographic data, we incorporated USPS-specific assumptions in our projection. The overall effect was to slightly increase the Postal Service's liability.



4.2. Mortality Analysis

Using census and event data provided by OPM, Hay Group analyzed the mortality experience of USPS annuitants. The study included FERS and CSRS annuitants and was based on observed experience covering the period 2000 to 2011. Based on this data, Hay Group developed a USPS-specific set of mortality rates applicable to both CSRS and FERS annuitants. These rates were then adjusted by mortality improvement factors through 2024, consistent with the approach used by OPM. The valuation of the liability under USPS-specific assumptions uses these rates developed by Hay Group.

The analysis of the USPS experience showed that there was negative improvement in rates for male annuitants under age 65 (the rates of mortality had increased for ages under 60 and were flat for ages 60-64) therefore the factor used for mortality improvement under USPS-specific assumptions is 0.3 percent and is lower than the factor under OPM assumptions of 1.7 percent for this group. The improvement varied from under 0.5 percent per year to about 2.0 percent per year for male annuitants over age 65. Since the mortality improvement was negative for annuitants under age 65 and less than the OPM improvement for annuitants over age 65 the factors used to project mortality improvement under USPS-specific assumptions is lower than the factor used under OPM assumptions.

The observed improvement in rates for female annuitants was between 0.5 percent and 3 percent per year and was higher than the improvement under OPM assumptions. Therefore the factor used to project mortality improvement under USPS-specific assumptions is higher than the factor under OPM assumptions.

Table 4.2-1 below shows the average improvement factors used for OPM and USPS-specific mortality rates. Overall, and as shown below, the mortality improvement factors for USPS were lower for males and higher for females than OPM assumptions.

	OPM Assumptions		USPS-Specific	
	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 OPM



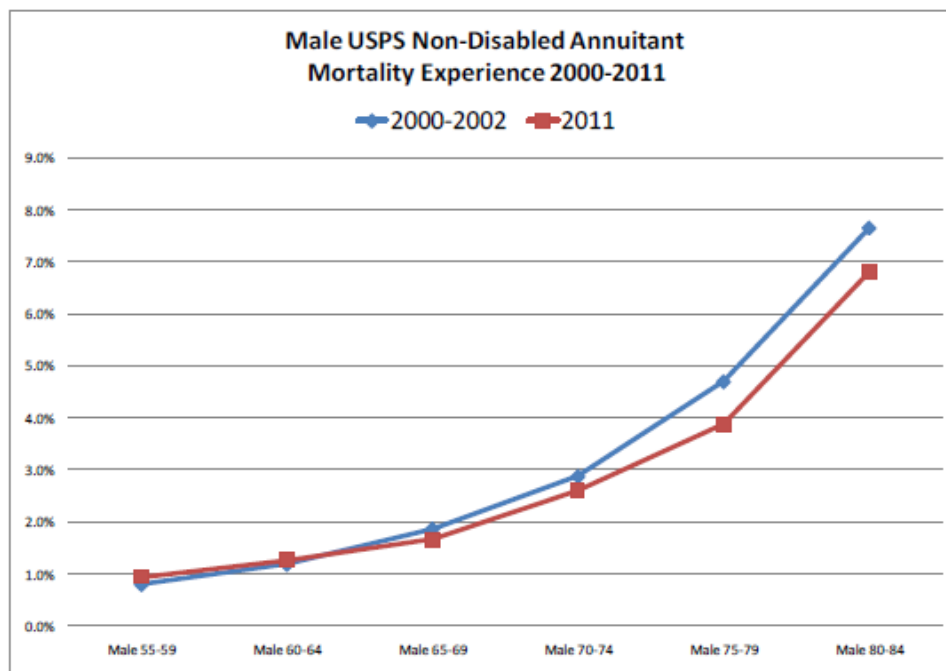
assumptions at ages 55 to 65 and longer for ages 75 and older. For female USPS annuitants the life expectancy is longer than OPM-wide at all ages, with the difference about 1 year at age 65.

The charts on the following pages compare USPS mortality observed from the earliest years of the period analyzed to the experience in 2011, the latest year in the study period, separately by gender.

Changes in Male Mortality

The study showed shifts in the rate of mortality by year – with improvements in mortality over the 11-year period for male annuitants over age 65, but deterioration in mortality rates for younger male annuitants.

Figure 4.2-1 – Male USPS Non-Disabled Annuitant Mortality Experience

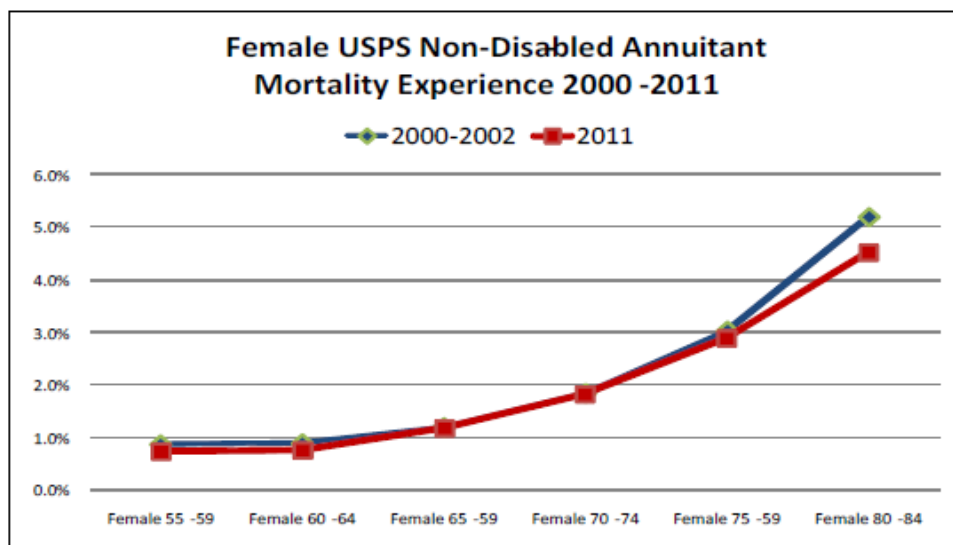




Changes in Female Mortality

For females, the study showed a small improvement in mortality rates at ages under 65, no material improvement at ages 65-74 and a small improvement at ages 75-79, with larger improvement at the older ages.

Figure 4.2-2 – Female USPS Non-Disabled Annuitant Mortality Experience



Based on the observed rates and the pattern of mortality changes over the past 11 years, we projected continued improvements at ages where we had seen improvements and stable rates for ages where mortality rates had increased. This projected set of rates was smoothed to develop the USPS-specific mortality table.

This process (evaluation of historical changes and projection of future improvements) mirrors the process used by the OPM Office of the Actuary in developing the FERS and CSRS annuitant mortality rates.

We applied the OPM mortality rates to the current annuitant data set and calibrated the results to match the OPM valuation report on USPS Retiree Medical liabilities. We then applied the USPS-specific mortality rates to the annuitant and active employee census data. The impact of measuring the liability using the USPS-specific mortality rates was a decrease in the Actuarial Accrued Liability of 0.8 percent.



4.3. Health Care Assumptions

Health Care Claim Costs

For valuation purposes we have assumed that the age-based claim costs developed by OPM for all retirees enrolled in FEHBP are equal to the claim costs applicable to the USPS retiree population. OPM currently does not track the claim information separately for the USPS population from the Federal employees. We analyzed the age distribution of the USPS retirees to the FEHBP retirees and found no significant difference in the age distribution. Therefore for this analysis the claim utilization characteristics of the USPS retiree population are assumed not to be different from the claim utilization characteristics of the total FEHBP retiree population enrolled under FEHBP.

Retiree Contributions

The retiree is responsible for the difference between the USPS-paid premium contribution and the premium rate of the health care plan the retiree elected. Retiree contributions are deducted from their annuity payments.

The cost of health care coverage is shared between the annuitants and the USPS as follows: For retirees whose full career was with the Postal Service, USPS pays 72 percent of the weighted average premiums of all FEHBP health care plans, but not more than 75 percent of the premium rate for the retiree selected health care plan option. Thus, if a retiree is enrolled in a health plan whose premium is greater than the weighted average premium, USPS pays 72 percent of the weighted average premium and the retiree pays the balance. If a retiree is enrolled in a health plan whose premium is significantly lower than the average, the USPS pays 75 percent of the actual plan premium. Since the maximum amount USPS pays towards a plan is based on the average of the plans in the whole of FEHBP, the caps would adjust if USPS retirees had an adverse claims experience, since this experience will flow through to the average plan premiums under FEHBP. Table A-1 on page 21 shows the development of the USPS portion of the premium for a sample of the plans.

For retirees with services allocated between the Federal Government and USPS, the USPS pays a pro-rata of the premium based on the percentage of the total service that is under the Postal Service.

Coverage Assumption

Spouses of retirees are eligible to continue health care coverage provided that the USPS retiree was enrolled in Family coverage while an employee immediately prior to retirement.

There are only two coverage options:

- Self Only (Self)
- Self and Family (Family)



Retirees may continue to cover their eligible dependents only if they were enrolled in Family coverage immediately before retirement. However, if a retiree has Self coverage and acquires a new dependent (through marriage, birth, adoption, or foster child), he or she may change from Self to Family coverage due to the qualifying life event.

Liabilities under the USPS-specific assumptions reflect a higher rate of spousal coverage by USPS employees. This assumption is based on the actual plan election rate for the current USPS retired population. The spousal coverage assumption OPM develops is an average across all employees enrolled under FEHBP. Changing this assumption resulted in the USPS liabilities increasing by 0.3 percent.

Appendix A of the report shows more detailed plan provisions under FEHBP and also shows the development of the USPS portion of the retiree premiums for a sample of the plans offered under FEHBP.



4.4. Data

The census data used for our valuation was provided by OPM, which provided updated 2012 census information on USPS employees enrolled in FEHBP and postal annuitants. We received individual census data for three groups (actives, retirees and survivors) from OPM which contained information on:

- Gender
- Birth Date
- Hire Date
- Total Service (if retired)
- USPS portion of service (if retired)
- Health Plan Code
- Coverage Code
- Retirement System (CSRS/FERS)

The total number of records provided by OPM compared to headcounts provided by USPS was consistent.

The Tables on the following pages summarize the data by age bands, gender, and service (for actives only):

- Table 4.3-1 shows the current active population
- Table 4.3-2 shows the current retirees
- Table 4.3-3 shows the current survivors

Table 4.3-1 USPS Active Employees								
Age Nearest Birthday	Closest whole year of service							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+	
<20	0	0	0	0	0	0	0	0
20 - 24	58	21	0	0	0	0	0	79
25 - 29	829	3,543	31	0	0	0	0	4,403
30 - 34	1,565	11,055	3,178	54	0	0	1	15,853
35 - 39	1,593	11,104	11,537	5,157	44	0	0	29,435
40 - 44	1,835	11,716	15,990	18,112	3,485	285	2	51,425
45 - 49	1,762	10,839	15,200	19,435	14,089	14,844	409	76,578
50 - 54	1,774	9,616	14,759	18,164	16,009	36,914	14,837	112,073
55 - 59	1,305	6,413	11,225	15,679	12,724	30,062	31,432	108,840
60 - 64	628	3,355	5,937	9,510	7,275	14,909	21,601	63,215
65 - 69	186	1,032	1,775	2,513	2,013	3,425	6,772	17,716
70 - 74	22	138	326	448	331	545	1,533	3,343
75+	5	29	45	93	109	126	596	1,003
Total	11,562	68,861	80,003	89,165	56,079	101,110	77,183	483,963



Table 4.3-2
USPS Current Retirees

Age	CSRS			FERS			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
<50	10	28	38	1,705	1,806	3,511	1,715	1,834	3,549
50 – 54	1,005	1,143	2,148	2,664	3,164	5,828	3,669	4,307	7,976
55 – 59	12,629	8,259	20,888	4,828	5,049	9,877	17,457	13,308	30,765
60 – 64	40,278	15,085	55,363	10,676	7,826	18,502	50,954	22,911	73,865
65 – 69	42,952	14,890	57,842	12,083	7,507	19,590	55,035	22,397	77,432
70 – 74	32,258	12,833	45,091	5,954	3,962	9,916	38,212	16,795	55,007
75 – 79	29,611	9,314	38,925	2,444	1,580	4,024	32,055	10,894	42,949
80 – 84	28,305	7,412	35,717	936	605	1,541	29,241	8,017	37,258
85 – 89	23,525	5,387	28,912	209	268	477	23,734	5,655	29,389
90 – 94	11,141	2,903	14,044	25	47	72	11,166	2,950	14,116
95 – 99	2,459	818	3,277	2	0	2	2,461	818	3,279
100+	238	127	365	1	0	1	239	127	366
Total	224,411	78,199	302,610	41,527	31,814	73,341	265,938	110,013	375,951

Table 4.3-3
USPS Current Survivors

Age	CSRS			FERS			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
<50	48	409	457	34	286	320	82	695	777
50 – 54	34	799	833	63	497	560	97	1,296	1,393
55 – 59	86	2,167	2,253	120	785	905	206	2,952	3,158
60 – 64	190	3,957	4,147	160	929	1,089	350	4,886	5,236
65 – 69	251	5,378	5,629	122	751	873	373	6,129	6,502
70 – 74	345	8,746	9,091	118	516	634	463	9,262	9,725
75 – 79	380	13,448	13,828	53	306	359	433	13,754	14,187
80 – 84	387	20,526	20,913	21	182	203	408	20,708	21,116
85 – 89	337	23,736	24,073	13	54	67	350	23,790	24,140
90 – 94	193	15,483	15,676	4	7	11	197	15,490	15,687
95 – 99	60	4,343	4,403	0	2	2	60	4,345	4,405
100+	5	725	730	0	1	1	5	726	731
Total	2,316	99,717	102,033	708	4,316	5,024	3,024	104,033	107,057



Appendix A - Applicable FEHBP Plan Provisions

The USPS participates in the Federal Employees Health Benefits Program (FEHBP), which offers employees, retirees and their survivors a selection of over 200 health care plans nationwide, with two coverage options (self and family). USPS employees who are eligible, as well as their eligible family members and survivors, may continue health care coverage in FEHBP at retirement, with annuitants paying a share of the premiums. The following describes the provisions of FEHBP for USPS retirees.

Eligibility

USPS employees may continue health care coverage at retirement if the following requirements are met:

1. The employee retires on an immediate annuity, which begins no later than one month after date of final separation; and
2. The employee has been enrolled in the health benefits program:
 - a. for five years immediately preceding retirement, or
 - b. if less than five years, enrolled for the full period in which eligible for coverage.

An employee who is covered by the Federal Employees Retirement System (FERS) and is eligible for an immediate annuity at separation from USPS service may postpone receiving his or her annuity to avoid the age-based reduction in pension. Retirees who elect to postpone their annuity and meet the above eligibility requirements for continuing health care coverage may reenroll at a later time when they begin to receive the postponed annuity.

Other employees who retire early from CSRS/FERS and begin receiving deferred annuity benefits at age 62 are not eligible to enroll in FEHBP.

The eligibility conditions for FERS and CSRS are as follows:

An Employee Is Eligible for Retirement If the Employee Meets One of the Following Age and Service Requirements		
CSRS Employee Age is at least	FERS Employee Age is at least	And Creditable Service is at least
62	62	5 years
60	60	20 years
55	MRA	30 years

MRA (Minimum Retirement Age) varies by date of birth from 55 for employees born before 1948 to 57 for employees born after 1969.



Spouse Eligibility

Spouses of retirees are eligible to continue health care coverage as long as the USPS retiree was enrolled in family coverage while an employee immediately prior to retirement.

In addition, surviving spouses and children (survivor annuitants) and former spouses of deceased USPS employees receiving survivor annuities may continue coverage as well. If the surviving spouse or former spouse remarries, the spouse will continue to be eligible for coverage if:

1. the spouse remarries before age 55 and the spouse was married to the deceased USPS retiree for 30 years or more; or
2. the spouse remarries after age 55.

Dependent Eligibility

Eligible dependent children include:

1. Unmarried dependent children under age 26, including:
 - a. legally adopted children, stepchildren, foster children and recognized children born out of wedlock who live with the retiree; or
 - b. those covered by a court order to provide coverage to show that the retiree provides regular and substantial support for child; or
2. Unmarried disabled children age 26 and over incapable of self-support because of a disability that began before age 26 (and is expected to last more than one year).

Enrollment

Eligible retiring employees must make a positive election at retirement to continue their health care enrollment. OPM makes the final determination of eligibility for health care enrollment as a retiree. Retirees are entitled to the same health benefits as active employees.

The main types of health care plans are Fee-for-Service (FFS) and Managed Care plans. The insurance carriers and plans available to choose from vary among the states. The options that a retiree has will depend on where he or she lives.

The FFS plans offered are Preferred Provider Organizations (PPO) plans. Under a FFS plan, the insurance carrier contracts with a network of providers to provide services to plan participants at negotiated fees. These FFS plans have two benefits levels, in-network and out-of-network. In-network benefits have lower out-of-pocket costs to plan participants. Out-of-network benefits have higher out-of-pocket costs. These plans are designed to encourage plan participants to use the participating providers.



The managed care plans are Health Maintenance Organizations (HMO). HMO plans only offer one level of benefits. Plan participants must coordinate all of their care with their designated primary care physician and use participating providers in order to receive benefits under the plan. The services received are subject to plan copayments.

In addition, some of the health care plans available may have two options. For example, a retiree may choose between a Standard Option PPO plan and a Basic Option PPO plan from Blue Cross/Blue Shield. The benefits vary in coinsurance, copayments and deductible amounts. Not all available plans have both a High Option and a Standard Option.

Retirees are able to change their health care coverage. They may change coverage during the FEHBP open season or during the year if they experience a qualifying life event, such as change in family status (e.g., marriage, divorce, birth, death), becoming eligible for Medicare, or if the retiree moves out of the service area of his or her plan.

Retirees enrolled in FEHBP who become eligible for Medicare will not have their FEHBP coverage terminated. However, they may elect to cancel FEHBP enrollment if they are enrolling in a Medicare Advantage plan. They may then re-enroll at a later time if they choose to cancel their Medicare Advantage plan enrollment.

Coverage

There are only two types of coverage options:

- Self Only (Self)
- Self and Family (Family)

Retirees may continue to cover their eligible dependents only if they were enrolled in Family coverage immediately before retirement. However, if a retiree has Self coverage and acquires a new dependent (through marriage, birth, adoption, or foster child), he or she may change from Self to Family coverage due to the qualifying life event.

Retiree Contribution

The retiree is responsible for the difference between that USPS premium contribution and the premium rate of the health care plan option elected. The retiree contributions are deducted from annuity payments.

The cost of health care coverage is shared between the annuitants and the USPS. For retirees whose full career was with the Postal Service, USPS will pay 72 percent of the weighted average premiums of all the health care plans under FEHBP, limited to 75 percent of the premium rate for any given health care plan option. Thus, if a retiree is enrolled in a health plan whose



premium is greater than the average premium, USPS pays 72 percent of the weighted average premium and the retiree pays the balance. If a retiree is enrolled in a health plan whose premium is significantly lower than the average, the USPS pays 75 percent of the actual plan premium.

Table A-1 illustrates how these rules apply to different health benefit plans. The table shows that the USPS portion of the premium can vary from as low as 38 percent to as high as 75 percent. The table shows the FEHBP premiums as of January 1, 2013.

Plan	Monthly Plan Premium	72% of Average FEHBP premium	75% of Plan premium	USPS Portion [smaller of (3) or (4)]	USPS Portion as a Percent of Plan Premium
(1)	(2)	(3)	(4)	(5)	(6) = (5) / (2)
Blue Cross And Blue Shield Service Benefit Plan [Standard Only]	\$599.63	\$397.17	\$449.72	\$397.17	66.24%
Blue Cross And Blue Shield Service Benefit Plan [Basic Only]	\$511.98	\$397.17	\$383.99	\$383.99	75.00%
Mail Handlers Benefit Plan - Standard Option Only	\$622.81	\$397.17	\$467.11	\$397.17	63.77%
Rural Carrier Benefit Plan	\$603.22	\$397.17	\$452.42	\$397.17	65.84%
Health Net of California [High Option]	\$1,032.49	\$397.17	\$774.37	\$397.17	38.47%