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Police and Fire Retirement System of Wichita, Kansas

Actuarial Valuation as of December 31, 2012

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April 1, 2013

The Board of Trustees
Police and Fire Retirement System of Wichita, Kansas
City Hall, 12th Floor
455 N. Main Street
Wichita, KS 67202

Dear Members of the Board:

In accordance with your request, we have completed an actuarial valuation of the Police and Fire Retirement System of Wichita, Kansas as of December 31, 2012. The major findings of the valuation are contained in this report, including the contribution rate for fiscal year 2014. The plan provisions, actuarial assumptions, and actuarial methods are the same as the prior valuation.

This is the first valuation prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the December 31, 2011 actuarial valuation. While results were well within acceptable limits, there was a difference in the normal cost rate (23.6% vs. 24.2%). The actuarial liability, calculated by CMC, was higher than that shown in the December 31, 2011 actuarial valuation report ($567.3 million vs. $562.5 million). These differences are neither unusual nor significant. It is very common for differences in valuation results to occur due to the use of different pension valuation software.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, plan provisions, member data, and financial information. We found this information to be reasonably consistent and comparable with information for the last valuation that was provided by the prior actuary. The valuation results depend on the integrity of the data provided. If any of this information is inaccurate or incomplete, our valuation results may be different and our calculations may need to be revised.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. Actuarial computations presented in this report under GASB Statements No. 25, 27, and 50 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and of GASB Statements No. 25, 27 and 50. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

The consultants who worked on this assignment are pension actuaries. CMC's advice is not intended to be a substitute for qualified legal or accounting counsel.

This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries and have experience in performing valuations for public retirement plans, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement plan and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

We respectfully submit the following report and look forward to discussing it with you.

Sincerely,

Patrice Beckham

Brent A. Banister

Patrice A. Beckham, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Chief Pension Actuary

This report presents the results of the December 31, 2012 actuarial valuation of the Police and Fire Retirement System of Wichita, Kansas (WPF). The primary purposes of performing a valuation are to:

- estimate the liabilities for the benefits provided by the System,
- determine the employer contribution rates required to fund the System on an actuarial basis,
- disclose certain asset and liability measures as of the valuation date,
- monitor any deviation between actual plan experience and experience projected by the actuarial assumptions, so that recommendations for assumption changes can be made when appropriate,
- analyze and report on any significant trends in contributions, assets and liabilities over the past several years.

There have been no changes in the benefit provisions, actuarial assumptions, or actuarial methods from the last valuation.

This is the first valuation prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the December 31, 2011 actuarial valuation. While results were well within acceptable limits, there was a difference in the normal cost rate (23.6% vs. 24.2%). The actuarial liability, calculated by CMC, was higher than that shown in the December 31, 2011 actuarial valuation report ($567.3 million vs. $562.5 million). These differences are neither unusual nor significant. It is very common for differences in valuation results to occur due to the use of different pension valuation software.

The System had an unfunded actuarial liability of $51.5 million in the December 31, 2011 valuation, which has increased to an unfunded actuarial liability of $55.7 million in the December 31, 2012 valuation. A detailed analysis of the change in the unfunded actuarial liability from December 31, 2011 to December 31, 2012 is shown on page 3. The actuarial valuation results provide a "snapshot" view of the System's financial condition on December 31, 2012. The valuation results reflect net favorable experience for the past plan year as demonstrated by an unfunded actuarial liability that was lower than expected based on the actuarial assumptions used in the December 31, 2011 actuarial valuation. Unfavorable experience on the actuarial value of assets resulted in a loss of $7.3 million and favorable experience on liabilities resulted in a gain of $8.5 million. Net experience was an actuarial gain of $1.2 million.

The System uses an asset smoothing method in the valuation process. As a result, the System's funded status and the actuarial contribution rate are based on the actuarial (smoothed) value of assets – not the market value. On an actuarial value basis, the rate of investment return for calendar year 2012 was 6.3%. Because this return is less than the actuarially assumed rate of return of 7.75%, an actuarial loss occurred on investments. Under the asset smoothing method used in the valuation process, a portion of this investment loss is deferred to future years. On a market value basis, the rate of return on assets was 13.3%. This return reduced the deferred (unrecognized) investment loss from $50 million in the December 31, 2011 valuation to $22 million in the December 31, 2012 valuation. Actual returns over the next few years will determine when and how the $22 million of deferred investment loss is recognized. For example, a return of 12.4% on the market value of assets in 2013 would be necessary to attain a return of 7.75% on the actuarial value of assets and eliminate the deferred losses.

In the following pages the change in the assets, liabilities, and contributions of the System over the last year are discussed in more detail.

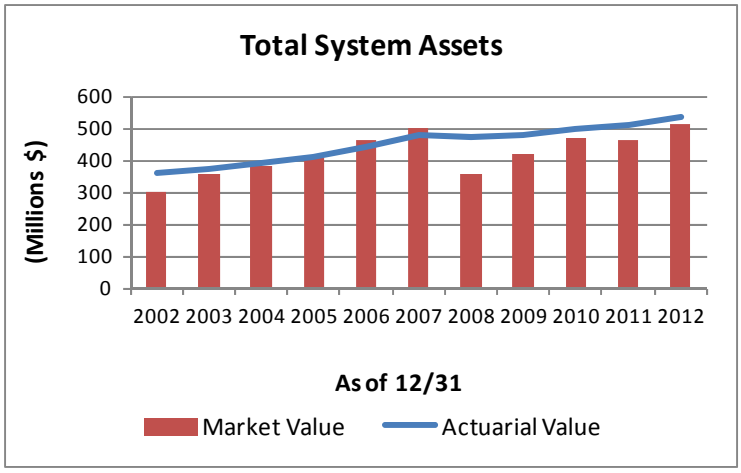
ASSETS

As of December 31, 2012, the System had total assets of $511.5 million when measured on a market value basis. This was an increase of $50.7 million from the December 31, 2011 figure of $460.8 million. The market value of assets is not used directly in the calculation of the City's contribution rate. An asset valuation method, which smoothes the effect of market fluctuations, is used to determine the value of assets used in the valuation, called the "actuarial value of assets". The actuarial value of assets is equal to the expected value (calculated using the actuarial assumed rate of 7.75%) plus 25% of the difference between the market and expected value. See Table 3 on page 12 for a detailed development of the actuarial value of assets. The rate of return on the actuarial value of assets was 6.3%. Due to a higher than expected return on the market value of assets in 2012, the actuarial value of assets is only 4% higher than the actual market value as compared to 11% in last year's valuation.

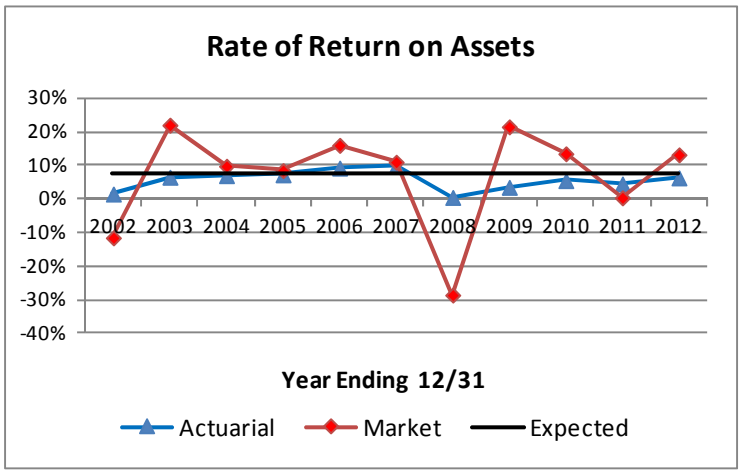
The components of the change in the market and actuarial value of assets for the System (in millions) are set forth below:

	Market Value ($M)	Actuarial Value ($M)
Assets, December 31, 2011	$460.8	$510.9
- City and Member Contributions	18.7	18.7
- Benefit Payments and Refunds	(28.2)	(28.2)
- Investment Income (net of expenses)	60.2	32.0
Assets, December 31, 2012	$511.5	$533.4

The unrecognized investment losses represent about 4% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the $22 million loss is expected to have an impact on the future funded ratio and actuarial contribution requirement. If the deferred losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 91% to 87% and the actuarially determined contribution rate for the City would increase from 22.4% to 24.7%.



The actuarial value of assets has both been greater than and less than the market value of assets during this period, which is expected when using a smoothing method.



The rate of return on the actuarial value of assets has been less volatile than the market value return, which is the main reason for using an asset smoothing method.

LIABILITIES

The actuarial liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial liability (UAL), or (surplus), if the asset value exceeds the actuarial liability. The unfunded actuarial liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and procedures will also impact the total actuarial liability and the unfunded portion thereof.

The Actuarial Liability and Unfunded Actuarial Liability for the System as of December 31, 2012 are:

Actuarial Liability	$589,073,375
Actuarial Value of Assets	533,380,618
Unfunded Actuarial Liability/(Surplus)	$ 55,692,757

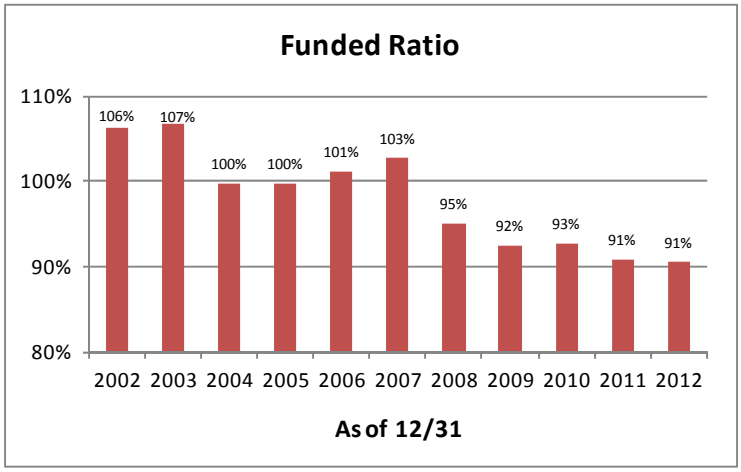
Between December 31, 2011 and December 31, 2012, the change in the unfunded actuarial liability for the System was as follows (in millions):

Change in Unfunded Actuarial Liability	($M)
UAL, December 31, 2011	$51.5
+ Normal cost for year	15.4
+ Assumed investment return for year	4.6
- Actual contributions (member + city)	18.7
- Assumed investment return on contributions	0.7
= Expected Unfunded Actuarial Liability, December 31, 2012	52.1
+ Change in Actuary	4.8
+ Change from assumption changes	0.0
= Expected UAL after changes	56.9
Actual UAL, December 31, 2012	55.7
Experience gain/(loss) (Expected UAL - Actual UAL)	$1.2

The experience gain for the 2012 plan year of $1.2 million reflects the combined impact of an actuarial loss of about $7.3 million on System assets (actuarial value), and an actuarial gain of about $8.5 million on System liabilities.

Analysis of the unfunded actuarial liability strictly as a dollar amount can be misleading. Another way to evaluate the unfunded actuarial liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial liability. This information for recent years is shown below (in millions). Historical information is shown in the graph following the chart.

	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
Actuarial Liability ($M)	$496.6	$519.9	$536.9	$562.5	$589.1
Actuarial Value of Assets ($M)	472.3	480.6	497.9	510.9	533.4
Funded Ratio (Actuarial Value)	95.1%	92.4%	92.7%	90.8%	90.5%
Funded Ratio (Market Value)	71.7%	81.2%	87.1%	81.9%	86.8%



Over the past decade, the funded status of the System has both improved and declined at times. The assumption changes and actuarial loss in 2004 caused the funded ratio to decline sharply. The strong asset performance in 2006 and 2007 returned the System to a surplus funded situation. The significant decline in the stock market in 2008 again dropped the funded ratio. The rebound of the stock market in 2009, 2010 and 2012 has helped stabilize the System's funded status.

As mentioned earlier in this report, due to the asset smoothing method there is currently about a $22 million difference between the actuarial value and the market value of assets. To the extent there is not favorable investment experience to offset the deferred losses, the $22 million deferred loss will be recognized in future years and the System's funded status will decline. The System's funded status will continue to be heavily dependent on investment experience.

CONTRIBUTION RATES

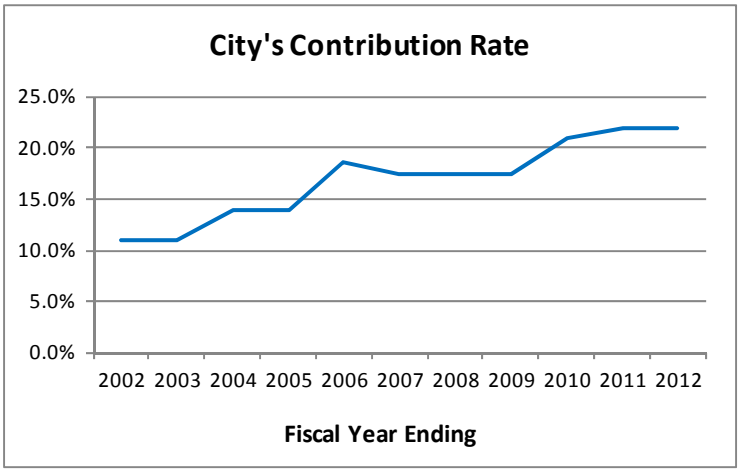
Generally, contributions to the System consist of:

- A "normal cost" for the portion of projected liabilities allocated to service of members during the year following the valuation date, by the actuarial cost method, and
- An "unfunded actuarial liability or (surplus) contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

Contribution rates are computed with the objective of developing costs that are level as a percentage of covered payroll. The contribution rate for fiscal year 2014 is based on the December 31, 2012 actuarial valuation results.

As of December 31, 2012, the actuarial liability exceeds the actuarial value of assets so an unfunded actuarial liability (UAL) exists. In accordance with State statutes, the UAL is to be amortized over a rolling 20-year period. Amortization of the UAL results in a contribution to fund the UAL in addition to the normal cost rate. This valuation indicates the City's contribution should be 22.4% of pay (16.5% employer normal cost rate plus 5.9% UAL contribution).

A summary of the City's historical contribution rate for the System is shown below:



As the System's funded status has trended down over the past ten years, the City's contribution rate has trended upward. The City's contribution rate is 22.8% and 22.4% for the Fiscal Years Ending 12/31/2013 and 12/31/2014, respectively.

COMMENTS

The System does not use the actual market value of assets in developing the actuarial contribution rates, but utilizes an asset valuation method to smooth out the peaks and valleys in investment returns from year to year. Under the asset valuation method, the actuarial value of assets is determined as 75% of the expected value (using the actuarial assumed rate of return) and 25% of the actual market value. The return on the market value of assets for 2012 was 13.3% which helped to offset some of the deferred investment losses that would have been recognized in the current valuation. However, even with the strong return on market value of assets in 2012, the return on the actuarial value of assets was 6.3%. As a result, the System experienced an actuarial loss on assets of $7.3 million. This loss was more than offset by the actuarial gain on liabilities, largely the result of lower than expected salary increases during 2012. The overall experience was a small actuarial gain of $1.2 million.

The deferred investment loss (actuarial value less market value of assets) has decreased to $22 million from $50 million in last year's valuation. Absent investment gains in future years, the deferred investment loss of $22 million will eventually be reflected in the actuarial value of assets in future years. While the use of an asset smoothing method is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred investment experience. This is accomplished by comparing the key valuation results from the December 31, 2012 actuarial valuation using both the actuarial and market value of assets (see table on next page).

	Using Actuarial Value of Assets	Using Market Value of Assets
Actuarial Liability	$589,073,375	$589,073,375
Asset Value	$533,380,618	$511,488,454
Unfunded Actuarial Liability	$55,692,757	$77,584,921
Funded Ratio	90.5%	86.8%
Normal Cost Rate	23.5%	23.5%
UAL Contribution Rate	5.9%	8.2%
Total Contribution Rate	29.4%	31.7%
Employee Contribution Rate	(7.0%)	(7.0%)
Employer Contribution Rate	22.4%	24.7%

The strong investment performance in calendar year 2012, along with a gain on System liabilities, resulted in the City's contribution rate holding steady at 22.4% instead of increasing which would have been expected based on last year's valuation results. The actuarial contribution rate to be paid by the City has been, and will continue to be, heavily impacted by investment returns from year to year. Despite the use of an asset smoothing method, actual returns that are significantly different than the 7.75% assumption tend to create volatility in the City's contribution rate.

SUMMARY OF PRINCIPAL RESULTS

1. PARTICIPANT DATA	12/31/2012 Valuation	12/31/2011 Valuation	% Change
Number of:			
Active Members			
Police	622	623	(0.2%)
Fire	462	465	(0.6%)
Total	1,084	1,088	(0.4%)
Retired Members and Beneficiaries	921	911	1.1%
Inactive Members	38	35	8.6%
Total Members	2,043	2,034	0.4%
Annual Valuation Payroll of Active Members			
Police	$ 37,773,221	$ 38,455,658	(1.8%)
Fire	25,987,924	25,727,491	1.0%
Total	$ 63,761,145	$ 64,183,149	(0.7%)
Annual Retirement Payments for Retired Members and Beneficiaries	$ 25,226,232	$ 24,030,607	5.0%
2. ASSETS AND LIABILITIES			
Total Actuarial Liability	$ 589,073,375	$ 562,487,887	4.7%
Market Value of Assets	511,488,454	460,840,745	11.0%
Actuarial Value of Assets	533,380,618	510,946,217	4.4%
Unfunded Actuarial Liability/(Surplus)	$ 55,692,757	$ 51,541,670	8.1%
Funded Ratio	90.5%	90.8%	(0.3%)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	23.5%	24.2%	(2.9%)
Member Financed	(7.0%)	(7.0%)	0.0%
Employer Normal Cost	16.5%	17.2%	(4.1%)
Amortization of Unfunded Actuarial Liability or (Surplus)	5.9%	5.6%	5.4%
Employer Contribution Rate	22.4%	22.8%	(1.8%)

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This report presents the actuarial valuation of the Police and Fire Retirement System of Wichita, Kansas (WPF) as of December 31, 2012. This valuation was prepared at the request of the System's Board of Trustees. The report is based on plan provisions and actuarial assumptions that are unchanged from last year.

Please pay particular attention to our cover letter, where the guidelines employed in the preparation of this report are outlined. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the System. Sections 4 and 5 describe how the obligations of the System are to be met under the actuarial cost method in use. Section 6 includes the information required for the financial reporting standards established by the Governmental Accounting Standards Board (GASB).

This report includes several appendices:

- Appendix A Schedules of valuation data classified by various categories of members.
- Appendix B A summary of the current benefit structure, as determined by the provisions of governing law on the valuation date.
- Appendix C A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D A glossary of actuarial terms.

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In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is December 31, 2012. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System. The actuarial process then leads to a method of determining the contributions needed by members and the employer in the future to balance the System assets and liabilities.

MARKET VALUE OF ASSETS

The current market value represents the "snapshot" or "cash-out" value of System assets as of the valuation date. In addition, the market value of assets provides a basis for measuring investment performance from time to time. At December 31, 2012, the market value of assets for the System was $511 million. Table 1 is a comparison, at market values, of System assets as of December 31, 2012, and December 31, 2011, in total and by investment category. Table 2 summarizes the change in the market value of assets from December 31, 2011 to December 31, 2012.

ACTUARIAL VALUE OF ASSETS

Neither the market value of assets, representing a "cash-out" value of System assets, nor the book values of assets, representing the cost of investments, may be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. This methodology, first adopted for the December 31, 2002 valuation, smoothes market experience by recognizing 25% of the difference between expected value (based on the actuarial assumption) and market value. Table 3 shows the development of the actuarial value of assets (AVA) as of December 31, 2012.

TABLE 1

Analysis of Net Assets at Market Value

	As of December 31, 2012		As of December 31, 2011	
	Amount ($ Millions)	% of Total	Amount ($ Millions)	% of Total
Cash and Equivalents	$ 0.5	0.1%	$ 0.4	0.1%
Government Securities	37.5	7.3	30.9	6.7
Corporate Debt	46.2	9.0	46.7	10.1
Mortgage Backed Securities	40.3	7.9	43.3	9.4
Pooled Funds	86.8	17.0	81.8	17.8
Domestic Equity	174.6	34.1	158.6	34.4
International Equity	83.4	16.3	71.6	15.5
Real Estate	17.9	3.5	16.2	3.5
Timber	10.6	2.1	4.9	1.1
Commodities	12.5	2.4	12.4	2.7
Securities Lending Collateral Pool	31.5	6.2	44.2	9.6
Other	0.2	0.0	0.2	0.0
Receivables	11.7	2.3	13.7	3.0
Liabilities	(42.2)	(8.2)	(64.1)	(13.9)
Total	$ 511.5	100.0%	$ 460.8	100.0%

TABLE 2

Summary of Changes in Net Assets
For Year Ended December 31, 2012

(Market Value)

1. Market Value of Assets as of December 31, 2011	$	460,840,745
2. Contributions:		
a. Members	$	4,543,523
b. City		14,113,014
c. Total	$	18,656,537
3. Investment Income:		
a. Interest and Dividends	$	12,353,419
b. Net Appreciation in Fair Value		50,553,717
c. Commission Recapture		19,678
d. Net Securities Lending Income		215,820
e. Total	$	63,142,634
4. Expenditures:		
a. Refunds of Member Contributions	$	357,192
b. Benefits Paid:		
(1) Pension and Death Benefits		24,558,618
(2) BackDROP Payments		3,245,820
c. Administrative Expenses		404,050
d. Investment Expenses		2,585,782
e. Total	$	31,151,462
5. Net Change [2(c) + 3(e) - 4(e)]	$	50,647,709
6. Market Value of Assets as of December 31, 2012 [(1) + (5)]	$	511,488,454

TABLE 3

Development of Actuarial Value of Assets as of December 31, 2012

1. Actuarial Value of Assets as of December 31, 2011	$	510,946,217
2. Actual Contributions/Disbursements		
a. Contributions	$	18,656,537
b. Benefit Payments and Refunds		(28,161,630)
c. Net	$	(9,505,093)
3. Expected Value of Assets as of December 31, 2012 [(1) * 1.0775] + [2(c) * $(1.0775)^{.5}$]	$	540,678,006
4. Market Value of Assets as of December 31, 2012	$	511,488,454
5. Difference Between Actual and Expected Values	$	(29,189,552)
6. Actuarial Value of Assets as of December 31, 2012 (3) + [(5) * 0.25]	$	533,380,618
7. Actuarial Value of Assets Divided by Market Value of Assets		104.3%
8. Market Value of Assets Minus Actuarial Value of Assets	$	(21,892,164)

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the System as of the valuation date, December 31, 2012. In this section, the discussion will focus on the commitments of the System, which are referred to as its liabilities.

Table 4 contains an analysis of the actuarial present value of all future benefits (PVFB) for contributing members, inactive members, retirees and their beneficiaries.

The liabilities summarized in Table 4 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes the measurement of both benefits already earned and future benefits to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and for the lives of the surviving beneficiaries.

All liabilities reflect the benefit provisions in place as of December 31, 2012.

ACTUARIAL LIABILITY

A fundamental principle in financing the liabilities of a prefunded retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to do this allocation, it is necessary for the funding method to "breakdown" the present value of future benefits into two components:

1. That which is attributable to the past and

2. That which is attributable to the future.

Actuarial terminology calls the part attributable to the past the "past service liability" or the "actuarial liability". The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the "normal cost". Table 5 contains the calculation of actuarial liability to the System. The Entry Age Normal actuarial cost method is used to develop the actuarial liability.

TABLE 4

Present Value of Future Benefits (PVFB)
as of December 31, 2012

	Plans A and B	Plan C	Total
1. Active Employees			
a. Retirement Benefit	$ 10,784,748	$ 357,524,432	$ 368,309,180
b. Pre-Retirement Death Benefit	800	5,131,143	5,131,943
c. Withdrawal Benefit	0	13,231,384	13,231,384
d. Disability Benefit	6,114	57,391,266	57,397,380
e. Total	$ 10,791,662	$ 433,278,225	$ 444,069,887
2. Inactive Vested Members	$ 0	$ 10,887,058	$ 10,887,058
3. In Pay Members			
a. Retirees	$ 154,257,725	$ 60,857,898	$ 215,115,623
b. Disabled Members	17,900,840	34,132,189	52,033,029
c. Beneficiaries	22,139,288	5,810,841	27,950,129
d. Total	$ 194,297,853	$ 100,800,928	$ 295,098,781
4. Total Present Value of Future Benefits 1(e) + (2) + 3(d)	$ 205,089,515	$ 544,966,211	$ 750,055,726

TABLE 5

Actuarial Liability
as of December 31, 2012

	Plans A and B	Plan C	Total
1. Active Employees			
a. Present Value of Future Benefits	$ 10,791,662	$ 433,278,225	$ 444,069,887
b. Present Value of Future Normal Costs	338,154	160,644,197	160,982,351
c. Actuarial Liability 1(a) - 1(b)	$ 10,453,508	$ 272,634,028	$ 283,087,536
2. Inactive Vested Members	$ 0	$ 10,887,058	$ 10,887,058
3. In Pay Members			
a. Retirees	$ 154,257,725	$ 60,857,898	$ 215,115,623
b. Disabled Members	17,900,840	34,132,189	52,033,029
c. Beneficiaries	22,139,288	5,810,841	27,950,129
d. Total	$ 194,297,853	$ 100,800,928	$ 295,098,781
4. Total Actuarial Liability 1(c) + (2) + 3(d)	$ 204,751,361	$ 384,322,014	$ 589,073,375

TABLE 6

Present Value of Accrued Benefits as of December 31, 2012

The present value of accrued benefits for the System reflects the benefits earned based on service, earnings, and the System provisions as of the valuation date. It also reflects the on-going nature of the System by using the same actuarial assumptions as are used for funding purposes. Further, because the System provides that the accrued benefits of deferred vested members are indexed until benefits begin, the present value of the accrued benefit liability for active members reflects this provision from the assumed termination of employment to the assumed benefit commencement date.

	Plans A and B	Plan C	Total
1. Active Employees	$ 10,744,020	$ 208,519,874	$ 219,263,894
2. Inactive Vested Members	$ 0	$ 10,887,058	$ 10,887,058
3. In Pay Members			
a. Retirees	$ 154,257,725	$ 60,857,898	$ 215,115,623
b. Disabled Members	17,900,840	34,132,189	52,033,029
c. Beneficiaries	22,139,288	5,810,841	27,950,129
d. Total	$ 194,297,853	$ 100,800,928	$ 295,098,781
4. Total	$ 205,041,873	$ 320,207,860	$ 525,249,733
5. Market Value of Assets*	$ 199,669,879	$ 311,818,575	$ 511,488,454
6. Funded Ratio (5)/(4)	97%	97%	97%

** Split of assets between Plans A and B and Plan C is in proportion to the liabilities for illustrative purposes only.*

The previous two sections were devoted to a discussion of the assets and liabilities of the System. A comparison of Tables 3 and 4 indicates that current assets fall short of meeting the present value of future benefits (total liability). This is expected in all but a completely closed fund, where no further contributions are anticipated. In an active system, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost rate and (2) the unfunded actuarial liability contribution rate.

The term "fully funded" is often applied to a system in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely funded or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial liability (UAL) exists. Likewise, when the actuarial value of assets is greater than the actuarial liability, a surplus exists.

DESCRIPTION OF CONTRIBUTION RATE COMPONENTS

The Entry Age Normal (EAN) actuarial cost method is used for the valuation. Under this method, the normal cost for each year from entry age to assumed exit age is a constant percentage of the member's year by year projected compensation. The portion of the present value of future benefits not provided by the present value of future normal costs is the actuarial liability. The unfunded actuarial liability/(surplus) represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/(losses).

In general, contributions are computed in accordance with a level percent-of-payroll funding objective. The contribution rates based on this December 31, 2012 actuarial valuation will be used to determine employer contribution rates to the Police and Fire Retirement System of Wichita, Kansas for fiscal year 2014. In this context, the term "contribution rate" means the percentage, which is applied to a particular active member payroll to determine the actual employer contribution amount (i.e., in dollars) for the group.

As of December 31, 2012, the valuation assts were less than the actuarial liability so an unfunded actuarial liability exists. State statutes require any unfunded actuarial liability/(surplus) in municipal police and fire retirement systems to be amortized over a rolling 20-year period. The amortization of the UAL results in an employer contribution that is more than the employer normal cost rate.

CONTRIBUTION RATE SUMMARY

In Table 7, the amortization payment related to the unfunded actuarial liability/(surplus), as of December 31, 2012, is developed. Table 8 develops the normal cost rate for the System. The derivation of the total contribution rate for the City is shown in Table 9. Table 10 shows the historical summary of the City's contribution rates. Table 11 develops the experience gain/(loss) for the year ended December 31, 2012.

The rates shown in this report are based on the actuarial assumptions and cost methods described in Appendix C.

TABLE 7

Derivation of Unfunded Actuarial Liability Contribution Rate

1. Actuarial Accrued Liability	$	589,073,375
2. Actuarial Value of Assets	$	533,380,618
3. Unfunded Actuarial Liability/(Surplus)	$	55,692,757
4. Payment (Adjusted to Mid-Year) to Amortize Unfunded Actuarial Liability/(Surplus) Over 20 Years*	$	3,963,718
5. Total Projected Payroll for the Year	$	67,497,679
6. Amortization Payment as a Percent of Payroll		5.9%

* The UAL is amortized as a level percent of payroll over a rolling 20-year period.

TABLE 8

Derivation of Normal Cost Rate

Normal Cost for Year End December 31, 2012		
Service pensions	$	10,527,504
Disability pensions		3,304,462
Survivor Pensions		313,717
Termination Benefits		1,013,094
Total Normal Cost	$	15,158,777
Expected Payroll in 2013 for Current Actives	$	64,415,911
Total Normal Cost Rate for Year		23.5%

TABLE 9

Employer Contribution Rates for Fiscal Year Commencing in 2014

	Contribution Requirement as a % of Payroll
Normal Cost	
Service pensions	16.3 %
Disability pensions	5.1 %
Survivor pensions	0.5 %
Termination pensions	1.6 %
Total Normal Cost	23.5 %
Unfunded Actuarial Liability	
Retired members and beneficiaries [1]	0.0 %
Active and former members [2]	5.9 %
Total UAL Contribution	5.9 %
Total Contribution Requirement	
Member Financed Portion [3]	7.0 %
City Financed Portion	22.4 %
Total	29.4 %

[1] Actuarial accrued liability for retired members and beneficiaries was fully funded as of December 31, 2012

[2] The excess of the actuarial liability over actuarial value of assets is amortized as a level percent of active member payroll over a rolling 20-year period.

[3] The weighted average of member contribution rates: 8.0% for Plan A and 7.0% for Plan C.

TABLE 10

Historical Summary of City Contribution Rates

Contribution rates are computed in accordance with a level percent of payroll funding objective. As of December 31, 2012, the actuarial value of assets is less than actuarial liabilities resulting in an unfunded actuarial liability (UAL). The UAL is amortized over a rolling 20-year period.

Valuation Date	Fiscal Year	City Contributions as Percents of Active Member Pensionable Payroll	
		Funding Objective	Amortization (Credit)/Payment
11/30/1992	1994	23.3%	0.0%
11/30/1993	1995	22.7	0.0
11/30/1994	1996	22.6	0.0
12/31/1995	1997	18.3[1]	0.0
12/31/1996	1998	17.5	0.0
12/31/1997	1999	15.2 - 15.9	(0.7)
12/31/1998	2000	12.3 - 15.9	(3.6)
12/31/1999[2]	2001	9.6 - 16.8	(7.2)
12/31/2000	2002	8.2 - 16.8	(8.7)
12/31/2001	2003	10.0 - 16.8	(6.8)
12/31/2002	2004	14.0 - 17.0	(3.0)
12/31/2003	2005	13.6 - 17.0	(3.4)
12/31/2004[3]	2006	18.4	0.1
12/31/2005	2007	17.5	0.2
12/31/2006	2008	16.8 - 17.5	(0.7)
12/31/2007	2009	16.0 - 17.5	(1.5)
12/31/2008	2010	20.8	2.7
12/31/2009[4]	2011	22.0	4.3
12/31/2010	2012	22.0	4.2
12/31/2011	2013	22.8	5.6
12/31/2012	2014	22.4	5.9

(1) Reflects allocation of assets to fully fund retired life liabilities.

(2) Includes benefit provision and assumption changes and 1% decrease in member contribution rate.

(3) Reflects assumption changes and elimination of surplus assets.

(4) Reflects assumption changes.

TABLE 11

Derivation of System Experience Gain/(Loss)

	($M) Year Ended 12/31/2012
(1) UAL* at start of year	$51.5
(2) + Normal cost for year	15.4
(3) + Assumed investment return on (1) & (2)	4.6
(4) - Actual contributions (member + City)	18.7
(5) - Assumed investment return on (4)	0.7
(6) = Expected UAL at end of year	52.1
(7) + Increase (decrease) from change in Actuary	4.8
(8) + Increase (decrease) from assumption changes	0.0
(9) = Expected UAL after changes	56.9
(10) = Actual UAL at year end	55.7
(11) = Experience gain/(loss) (9) - (10)	$1.2**
(12) = Percent of beginning of year AL	0.2%

* Unfunded Actuarial Liability/(Surplus)

** Of this amount, there was an experience loss of $7.3 million due to the actuarial value of assets and an experience gain of $8.5 million on actuarial liabilities.

The actuarial liability is a measure intended to help the reader assess (i) a retirement system's funded status on an on-going concern basis, and (ii) progress being made toward accumulating the assets needed to pay benefits as due. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the Entry Age Normal actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the System's level percent of payroll annual required contribution between entry age and assumed exit age. Entry age was established by subtracting credited service from current age on the valuation date.

The preceding methods comply with the financial reporting standards established by the Governmental Accounting Standards Board.

The Entry Age Normal actuarial liability was determined as part of an actuarial valuation of the System as of December 31, 2012. Significant actuarial assumptions used in determining the actuarial liability include:

(a) A rate of return on the investment of present and future assets of 7.75% per year compounded annually,
(b) Projected salary increases of 4.00% per year compounded annually, (3.50% attributable to inflation, and 0.50% attributable to productivity),
(c) Additional projected salary increases of 1.0% to 2.75% per year attributable to seniority/merit, and
(d) The assumption that benefits will increase 2.0% per year of retirement, non-compounded commencing 36 months after retirement.

Actuarial Liability:	
Active members	$283,087,536
Retired members and beneficiaries currently receiving benefits	295,098,781
Vested terminated members not yet receiving benefits	10,887,058
Total Actuarial Liability	$589,073,375
Actuarial Value of Assets (market value was $511,488,454)	$533,380,618
Unfunded Actuarial Liability	$ 55,692,757

During the year ended December 31, 2012, the System experienced a net increase of $4.2 million in the unfunded actuarial liability.

TABLE 12

Required Supplementary Information
Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (AL) (b)	Unfunded AL (UAL) (b)-(a)	Funded Ratio (a)/(b)	Active Member Covered Payroll (c)	UAL as a Percentage of Active Member Covered Payroll [(b)-(a)]/(c)
11/30/1992	$165,132	$198,656	$33,524	83.1%	$25,000	134.1%
11/30/1993	180,457	208,966	28,509	86.4	26,008	109.6
11/30/1994	192,668	220,596	27,928	87.3	27,819	100.4
12/31/1995[1]	213,431	231,372	17,941	92.2	29,749	60.3
12/31/1996	237,554	247,408	9,854	96.0	33,366	29.5
12/31/1997	262,815	258,706	(4,109)	101.6	35,502	(11.6)
12/31/1998	295,625	274,900	(20,725)	107.5	36,566	(56.7)
12/31/1999[1]	330,072	291,633	(38,439)	113.2	37,969	(101.2)
12/31/2000	354,044	308,894	(45,150)	114.6	38,613	(116.9)
12/31/2001	362,493	325,335	(37,158)	111.4	42,286	(87.9)
12/31/2002	361,687	340,524	(21,163)	106.2	45,696	(46.3)
12/31/2003	374,171	350,444	(23,727)	106.8	45,876	(51.7)
12/31/2004[1]	392,485	393,387	902	99.8	50,414	1.8
12/31/2005	412,823	414,027	1,204	99.7	52,207	2.3
12/31/2006	444,498	439,179	(5,319)	101.2	53,530	(9.9)
12/31/2007	480,820	468,115	(12,705)	102.7	57,310	(22.2)
12/31/2008	472,345	496,561	24,216	95.1	60,282	40.2
12/31/2009[1]	480,556	519,934	39,378	92.4	63,055[2]	62.5[2]
12/31/2010	497,926	536,908	38,982	92.7	63,077	61.8
12/31/2011	510,946	562,488	51,542	90.8	62,759	82.1
12/31/2012	533,381	589,074	55,693	90.5	64,150	86.8

Dollar amounts are in thousands.
Note: Years prior to 12/31/2012 were provided by prior actuary.

[1] After changes in benefits and/or actuarial assumptions and/or actuarial cost methods.

[2] These amounts have been revised from the $63,479,000 and 62.0% amounts reported in the December 31, 2009 actuarial valuation report.

Analysis of the dollar amounts of actuarial value of assets, actuarial liability, or unfunded actuarial liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial liability provides one indication of the System's funded status on an on-going concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan's funding. The unfunded actuarial liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial liability as a percentage of covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan's funding.

TABLE 13

Required Supplementary Information
Schedule of Employer Contributions

Fiscal Year	Actuarial Valuation Date	Annual Required Contribution	Percent Contributed
1997	12/31/1995	$6,343,027	100%
1998	12/31/1996	6,427,744	100
1999	12/31/1997	6,043,455	100
2000	12/31/1998	5,540,575	100
2001	12/31/1999	4,796,863	100
2002	12/31/2000	4,746,504	100
2003	12/31/2001	5,043,505	100
2004	12/31/2002	6,925,467	100
2005	12/31/2003	7,308,916	100
2006	12/31/2004	9,849,536	100
2007	12/31/2005	10,029,253	100
2008	12/31/2006	10,549,401	100
2009	12/31/2007	11,034,552	100
2010	12/31/2008	13,119,984	100
2011	12/31/2009	13,806,880	100
2012	12/31/2010	14,113,014	100

Note: Years prior to 2012 were provided by prior actuary.

Notes to Required Supplementary Information
Summary of Actuarial Methods and Assumptions

Valuation Date	December 31, 2012
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent of payroll, open
Remaining Amortization Period	20 years
Asset Valuation Method	Expected + 25% of (Market – Expected Values)
Actuarial Assumptions:	
Investment Rate of Return*	7.75%
Projected Salary Increases*	5.00%-6.75%
*Includes Inflation at	3.50%
Cost-of-Living Adjustments	2.00% non-compounding commencing 36 months after retirement

TABLE 14

Solvency Test

Valuation Date	Aggregate Actuarial Liability For (1) Active Member Contributions	(2) Retirants and Beneficiaries*	(3) Active Members (Employer Financed Portion)	Reported Valuation Assets	Portion of Actuarial Liabilities Covered by Reported Assets (1)	(2)	(3)
11/30/1994	$18,003,627	$127,670,273	$74,921,662	$192,667,674	100.0%	100.0%	62.7%
12/31/1995	19,597,012	132,215,980	79,559,050	213,431,416	100.0	100.0	77.4
12/31/1996	20,807,624	141,902,560	84,497,686	237,553,602	100.0	100.0	88.6
12/31/1997	22,518,199	146,068,362	90,119,236	262,814,796	100.0	100.0	104.6
12/31/1998	23,845,658	157,021,415	94,033,395	295,624,986	100.0	100.0	122.0
12/31/1999	24,759,118	170,478,501	96,395,412	330,071,866	100.0	100.0	139.9
12/31/2000	27,152,206	183,463,718	98,277,967	354,044,311	100.0	100.0	145.9
12/31/2001	27,694,761	183,034,623	114,605,637	362,493,060	100.0	100.0	132.4
12/31/2002	34,440,696	182,063,498	124,019,921	361,687,109	100.0	100.0	117.1
12/31/2003	37,027,041	186,930,565	126,486,746	374,170,781	100.0	100.0	118.8
12/31/2004	40,959,525	201,051,248	151,375,876	392,484,697	100.0	100.0	99.4
12/31/2005	44,057,922	210,560,068	159,408,592	412,822,760	100.0	100.0	99.2
12/31/2006	48,361,719	216,449,174	174,368,239	444,497,827	100.0	100.0	103.1
12/31/2007	53,686,866	230,893,426	183,634,348	480,820,001	100.0	100.0	106.9
12/31/2008	58,050,319	238,590,747	199,920,080	472,345,191	100.0	100.0	87.9
12/31/2009	60,326,408	257,298,665	202,309,181	480,555,562	100.0	100.0	80.5
12/31/2010	63,515,814	270,693,677	202,698,947	497,925,786	100.0	100.0	80.8
12/31/2011	66,390,179	293,730,691	202,367,017	510,946,217	100.0	100.0	74.5
12/31/2012	70,527,705	305,985,839	212,559,831	533,380,618	100.0	100.0	73.8

During the twelve months ended December 31, 2012, the Police and Fire Retirement System of Wichita, Kansas generated a net actuarial gain of $1.2 million. The amount is 0.2% of the actuarial liability at the beginning of the year.

* *Includes vested terminated members.*
Note: Years prior to 2012 provided by prior actuary.

MEMBER DATA RECONCILIATION

December 31, 2011 to December 31, 2012

The number of members included in the valuation, as summarized in the table below, is in accordance with the data submitted by the System for members of the valuation date.

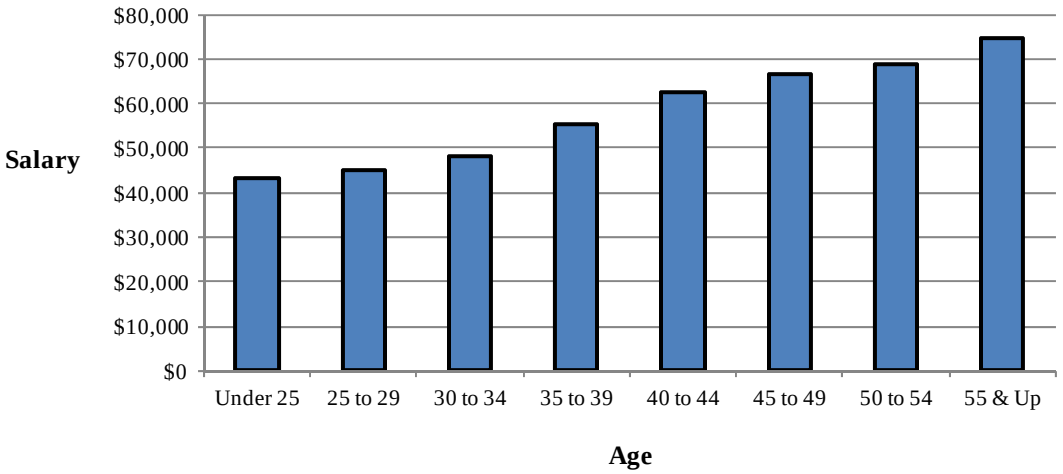
	Active Participants		Retirees and Beneficiaries		Terminated Vested		Total
	Police	**Fire**	**Police**	**Fire**	**Police**	**Fire**	
Members as of 12/31/2011	623	465	439	472	27	8	2,034
New Members	+22	+15	+4	+5	0	0	+46
Transfers	0	0	0	0	0	0	0
Terminations							
Refunded	-9	-4	0	0	0	0	-13
Deferred Vested	-5	-1	0	0	+5	+1	0
Completion of payments to minor child	0	0	-1	-1	0	0	-2
Retirements							
Service	-7	-11	+10	+11	-3	0	0
Disability	-2	-1	+2	+1	0	0	0
Deaths							
Cashed Out	0	0	0	0	0	0	0
With Beneficiary	0	0	-4	-4	0	0	-8
Without Beneficiary	0	0	-5	-8	0	0	-13
Data Adjustments	0	-1	0	0	0	0	-1
Members as of 12/31/2012	**622**	**462**	**445**	**476**	**29**	**9**	**2,043**

SUMMARY OF ACTIVE MEMBERS
as of December 31, 2012

Total

Age	Number			Valuation Salaries		
	Police	Fire	Total	Police	Fire	Total
Under 25	13	9	22	$ 579,467	$ 370,380	$ 949,847
25 to 29	60	58	118	2,805,547	2,486,275	5,291,822
30 to 34	88	92	180	4,441,706	4,257,940	8,699,646
35 to 39	110	65	175	6,281,836	3,382,365	9,664,201
40 to 44	141	73	214	9,014,241	4,330,623	13,344,864
45 to 49	108	69	177	7,290,044	4,495,497	11,785,541
50 to 54	70	60	130	4,958,936	3,985,735	8,944,671
55 & Up	32	36	68	2,401,444	2,679,109	5,080,553
Total	622	462	1,084	$37,773,221	$25,987,924	$63,761,145

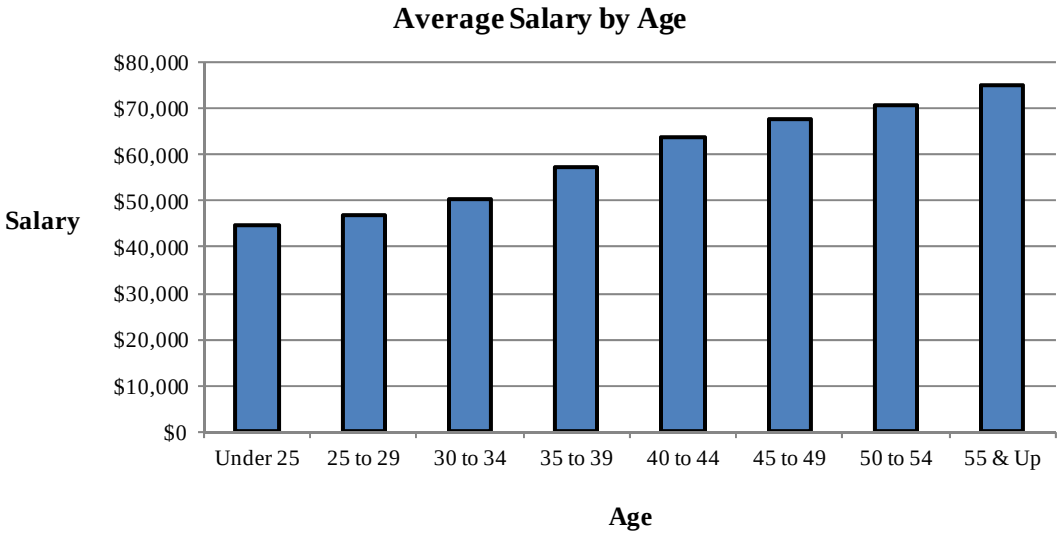
Average Salary by Age



SUMMARY OF ACTIVE MEMBERS
as of December 31, 2012

Police

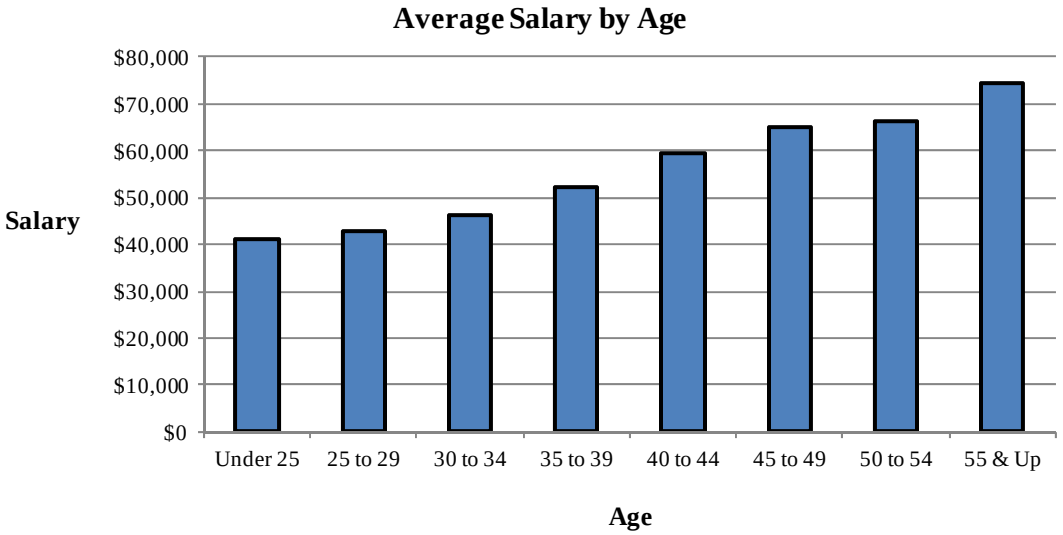
Age	Number			Valuation Salaries		
	Male	Female	Total	Male	Female	Total
Under 25	11	2	13	$ 491,307	$ 88,160	$ 579,467
25 to 29	52	8	60	2,428,678	376,869	2,805,547
30 to 34	73	15	88	3,695,533	746,173	4,441,706
35 to 39	90	20	110	5,160,778	1,121,058	6,281,836
40 to 44	123	18	141	7,926,341	1,087,900	9,014,241
45 to 49	104	4	108	7,018,502	271,542	7,290,044
50 to 54	64	6	70	4,511,690	447,246	4,958,936
55 & Up	28	4	32	2,115,159	286,285	2,401,444
Total	545	77	622	$33,347,988	$4,425,233	$37,773,221



SUMMARY OF ACTIVE MEMBERS
as of December 31, 2012

Fire

Age	Number			Valuation Salaries		
	Male	Female	Total	Male	Female	Total
Under 25	9	0	9	$ 370,380	$ 0	$ 370,380
25 to 29	58	0	58	2,486,275	0	2,486,275
30 to 34	89	3	92	4,124,579	133,361	4,257,940
35 to 39	64	1	65	3,328,047	54,318	3,382,365
40 to 44	73	0	73	4,330,623	0	4,330,623
45 to 49	67	2	69	4,378,186	117,311	4,495,497
50 to 54	60	0	60	3,985,735	0	3,985,735
55 & Up	35	1	36	2,590,091	89,018	2,679,109
Total	455	7	462	$25,593,916	$394,008	$25,987,924



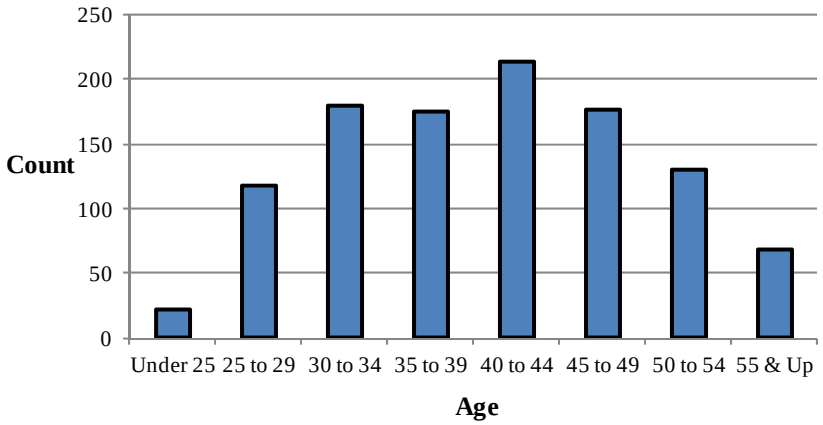
DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2012

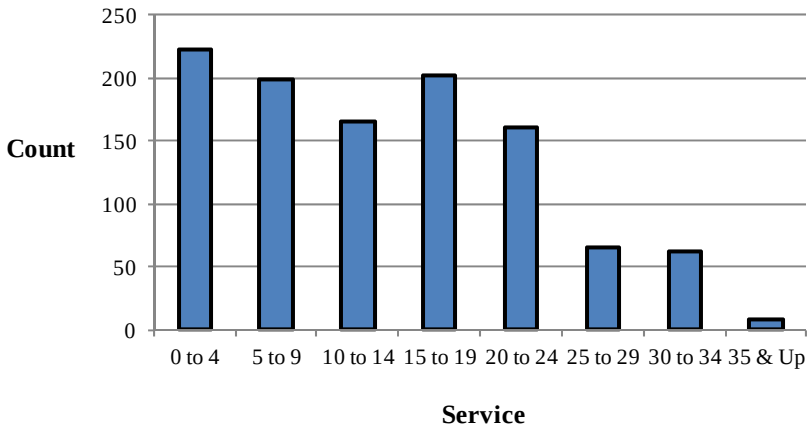
Total

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	22	0	0	0	0	0	0	0	22
25 to 29	97	21	0	0	0	0	0	0	118
30 to 34	72	90	18	0	0	0	0	0	180
35 to 39	22	53	76	24	0	0	0	0	175
40 to 44	6	26	55	98	29	0	0	0	214
45 to 49	2	4	12	61	75	23	0	0	177
50 to 54	1	5	3	16	41	31	33	0	130
55 & Up	0	0	2	2	15	11	30	8	68
Total	222	199	166	201	160	65	63	8	1,084

Age Distribution



Service Distribution



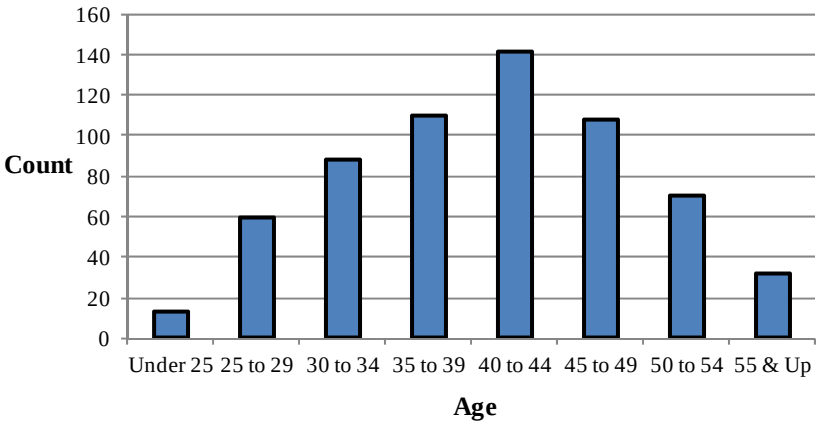
DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2012

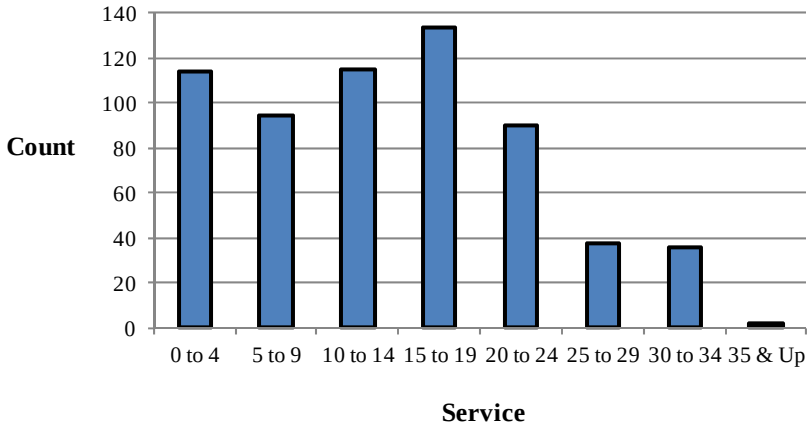
Police

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	13	0	0	0	0	0	0	0	13
25 to 29	51	9	0	0	0	0	0	0	60
30 to 34	33	43	12	0	0	0	0	0	88
35 to 39	11	26	55	18	0	0	0	0	110
40 to 44	3	10	39	69	20	0	0	0	141
45 to 49	2	3	6	37	47	13	0	0	108
50 to 54	1	3	1	8	17	21	19	0	70
55 & Up	0	0	2	1	6	4	17	2	32
Total	114	94	115	133	90	38	36	2	622

Age Distribution



Service Distribution



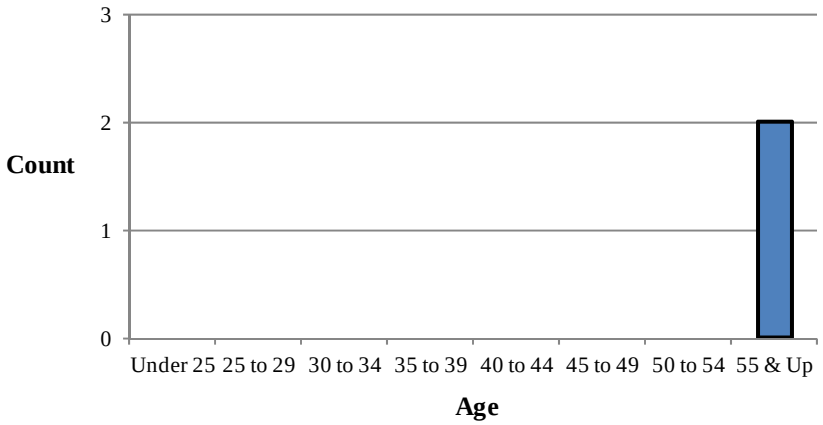
DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2012

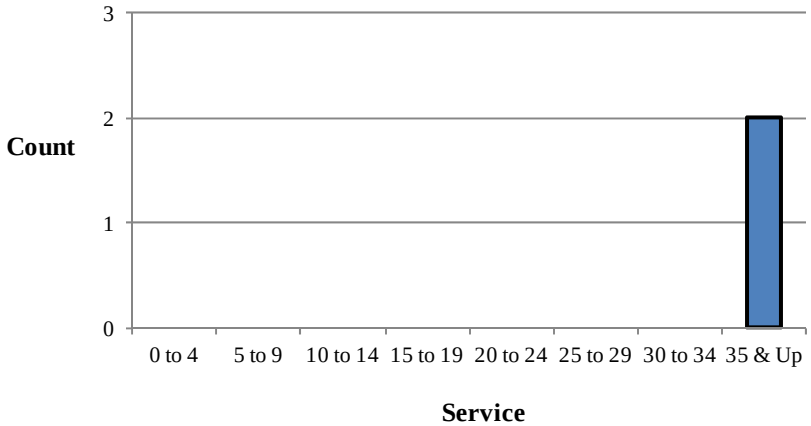
Police – Plan A

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	0	0	0	0	0
55 & Up	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	0	2	2

Age Distribution



Service Distribution



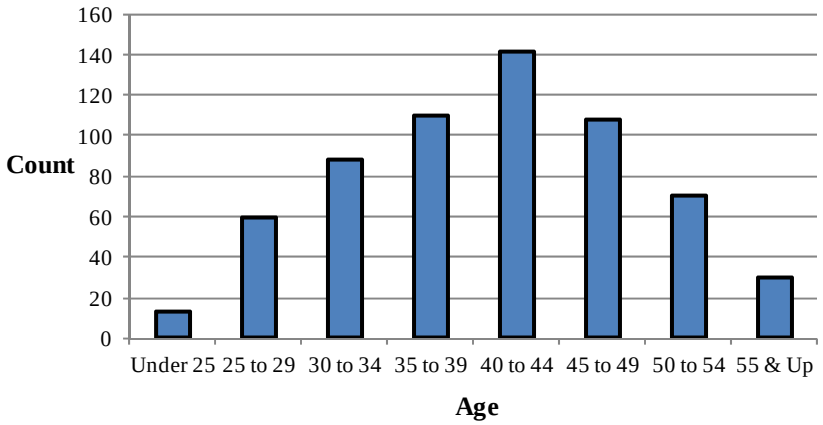
DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2012

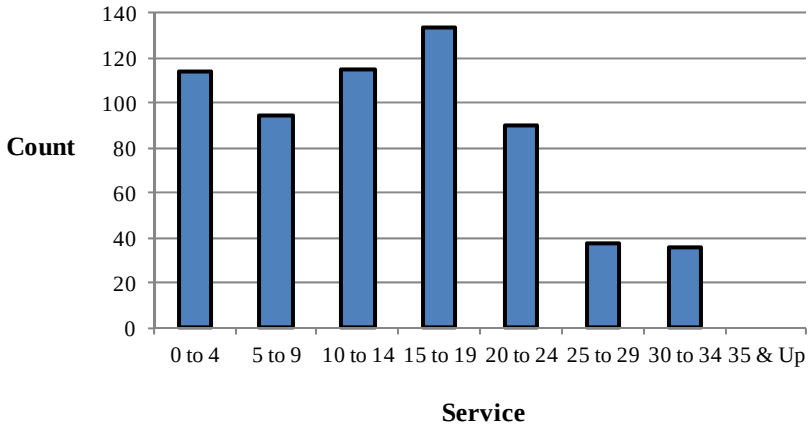
Police – Plan C

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	13	0	0	0	0	0	0	0	13
25 to 29	51	9	0	0	0	0	0	0	60
30 to 34	33	43	12	0	0	0	0	0	88
35 to 39	11	26	55	18	0	0	0	0	110
40 to 44	3	10	39	69	20	0	0	0	141
45 to 49	2	3	6	37	47	13	0	0	108
50 to 54	1	3	1	8	17	21	19	0	70
55 & Up	0	0	2	1	6	4	17	0	30
Total	114	94	115	133	90	38	36	0	620

Age Distribution



Service Distribution



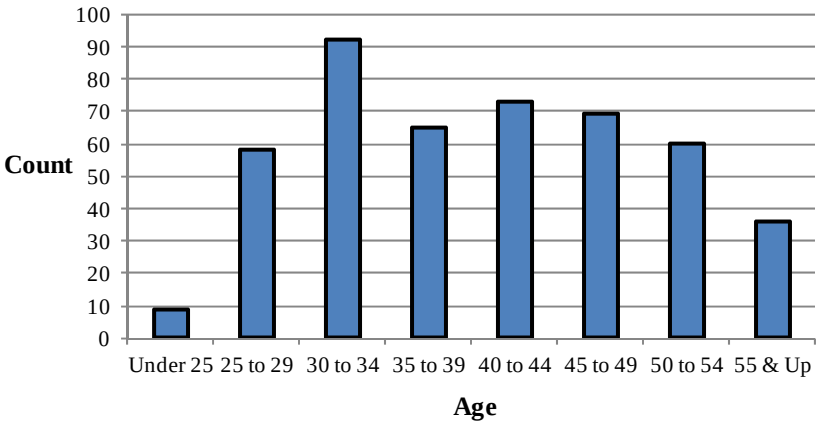
DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2012

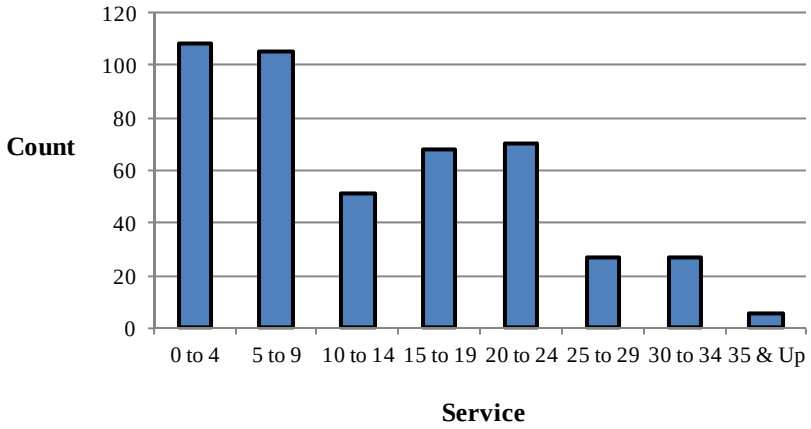
Fire

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	9	0	0	0	0	0	0	0	9
25 to 29	46	12	0	0	0	0	0	0	58
30 to 34	39	47	6	0	0	0	0	0	92
35 to 39	11	27	21	6	0	0	0	0	65
40 to 44	3	16	16	29	9	0	0	0	73
45 to 49	0	1	6	24	28	10	0	0	69
50 to 54	0	2	2	8	24	10	14	0	60
55 & Up	0	0	0	1	9	7	13	6	36
Total	108	105	51	68	70	27	27	6	462

Age Distribution



Service Distribution



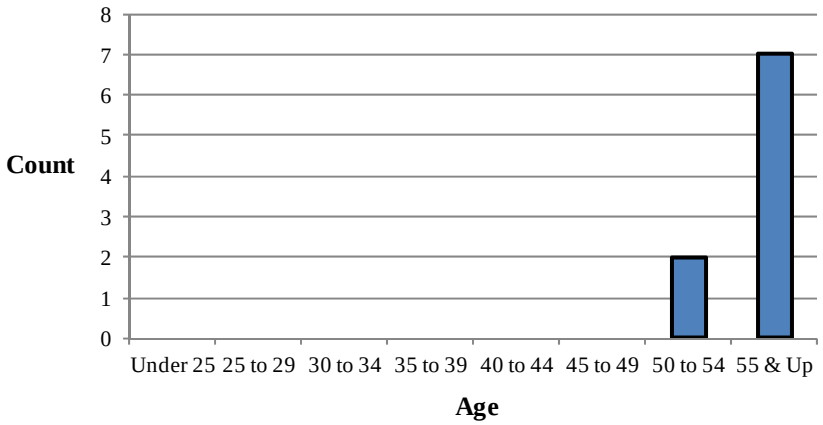
DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2012

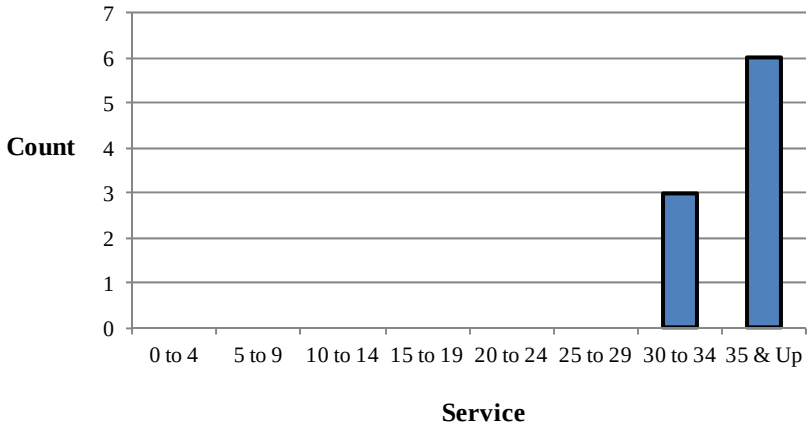
Fire – Plan A

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	0	0	2	0	2
55 & Up	0	0	0	0	0	0	1	6	7
Total	0	0	0	0	0	0	3	6	9

Age Distribution



Service Distribution

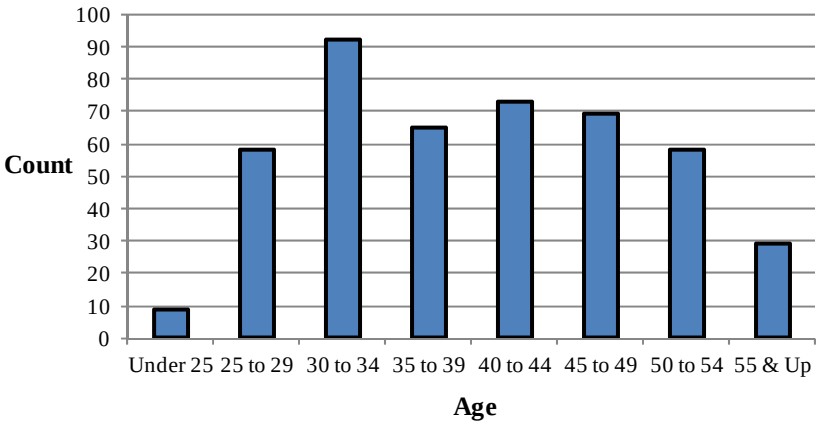


DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2012

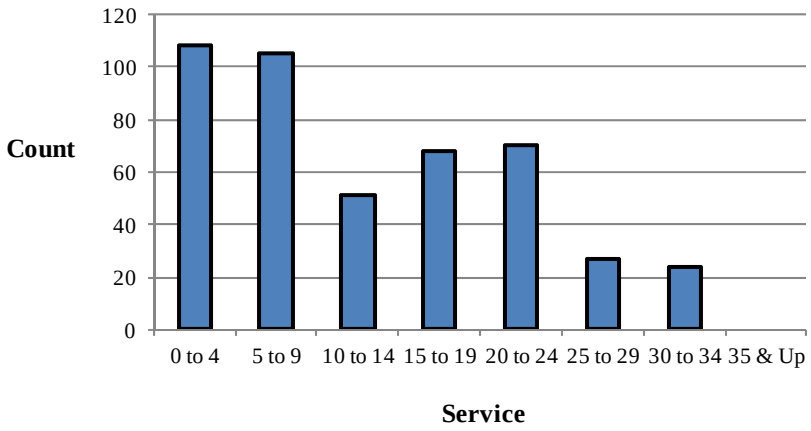
Fire – Plan C

	Years of Service								
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total
Under 25	9	0	0	0	0	0	0	0	9
25 to 29	46	12	0	0	0	0	0	0	58
30 to 34	39	47	6	0	0	0	0	0	92
35 to 39	11	27	21	6	0	0	0	0	65
40 to 44	3	16	16	29	9	0	0	0	73
45 to 49	0	1	6	24	28	10	0	0	69
50 to 54	0	2	2	8	24	10	12	0	58
55 & Up	0	0	0	1	9	7	12	0	29
Total	108	105	51	68	70	27	24	0	453

Age Distribution



Service Distribution



BackDROP Experience for the 2012 Plan Year

Total

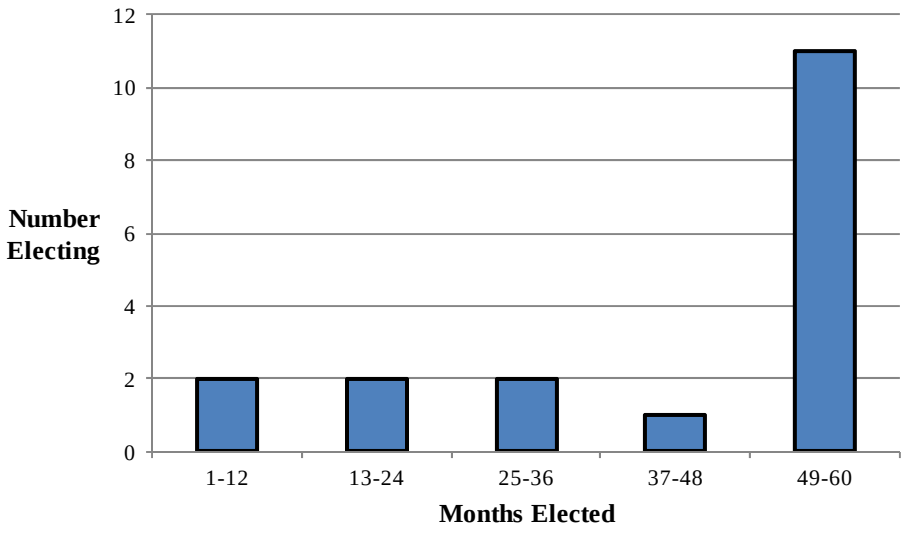
Number Electing BackDROP

Distribution of BackDROP Election Period

Final Benefit as a Proportion of Final Average Pay

Age	Under 55%	55%-60%	60%-65%	65%-70%	70%-75%	Total
Under 55	1	2	0	0	5	8
55-59	0	1	0	2	4	7
60-64	1	0	0	0	1	2
65 & Up	0	0	0	0	1	1
Total	2	3	0	2	11	18

Distribution of BackDROP Election Period



BackDROP Experience for the 2012 Plan Year

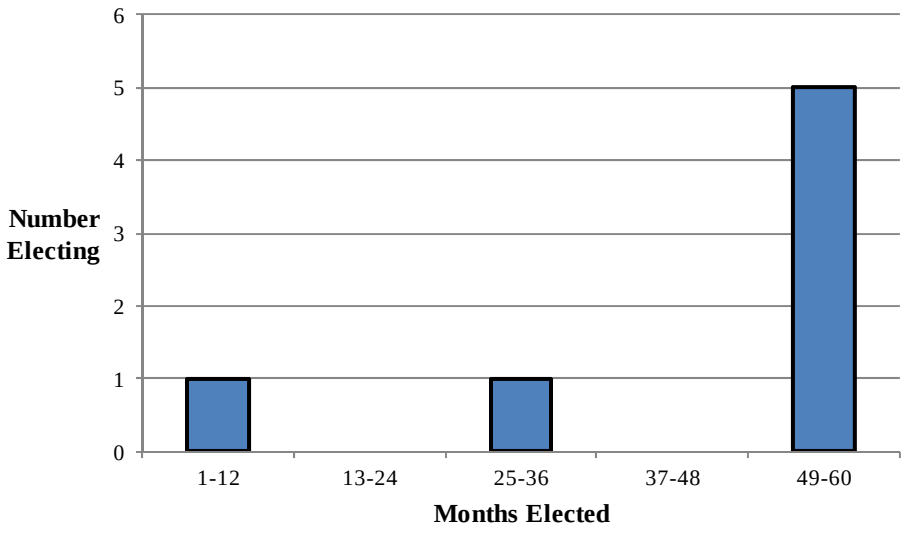
Police

Number Electing BackDROP

Distribution of BackDROP Election Period

	Final Benefit as a Proportion of Final Average Pay					
Age	Under 55%	55%-60%	60%-65%	65%-70%	70%-75%	Total
Under 55	0	2	0	0	1	3
55-59	0	0	0	0	2	2
60-64	0	0	0	0	1	1
65 & Up	0	0	0	0	1	1
Total	0	2	0	0	5	7

Distribution of BackDROP Election Period



BackDROP Experience for the 2012 Plan Year

Fire

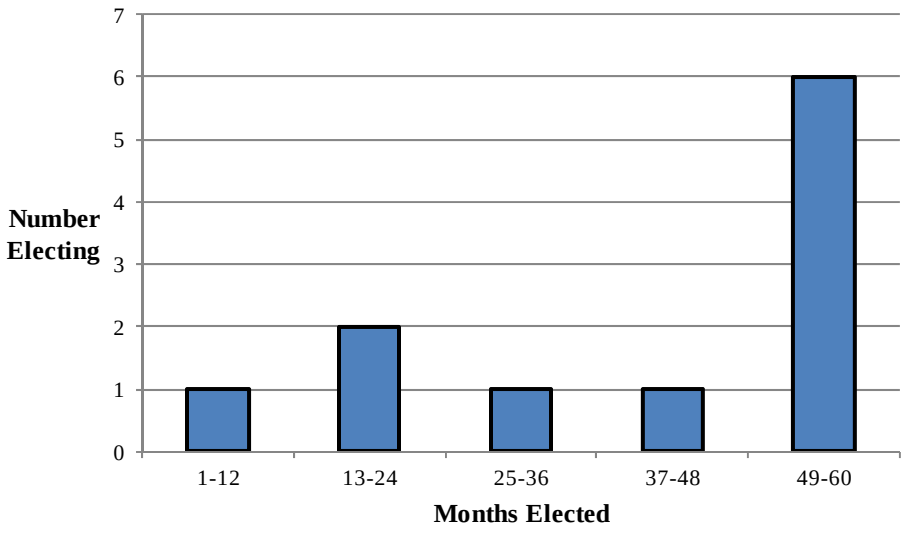
Number Electing BackDROP

Distribution of BackDROP Election Period

Final Benefit as a Proportion of Final Average Pay

Age	Under 55%	55%-60%	60%-65%	65%-70%	70%-75%	Total
Under 55	1	0	0	0	4	5
55-59	0	1	0	2	2	5
60-64	1	0	0	0	0	1
65 & Up	0	0	0	0	0	0
Total	2	1	0	2	6	11

Distribution of BackDROP Election Period



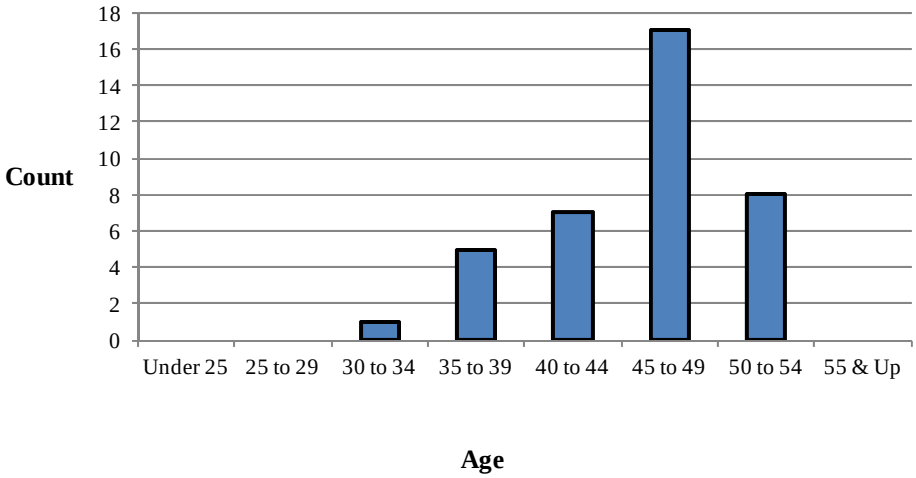
SUMMARY OF DEFERRED VESTED MEMBERS

as of December 31, 2012

Total

	Number			Current Monthly Benefit at Retirement		
Age	Police	Fire	Total	Police	Fire	Total
Under 25	0	0	0	$ 0	$ 0	$ 0
25 to 29	0	0	0	0	0	0
30 to 34	1	0	1	0	0	0
35 to 39	4	1	5	5,495	1,472	6,967
40 to 44	6	1	7	10,817	999	11,816
45 to 49	12	5	17	27,466	11,500	38,966
50 to 54	6	2	8	11,609	4,468	16,077
55 & Up	0	0	0	0	0	0
Total	29	9	38	$55,387	$18,439	$73,826

Age Distribution



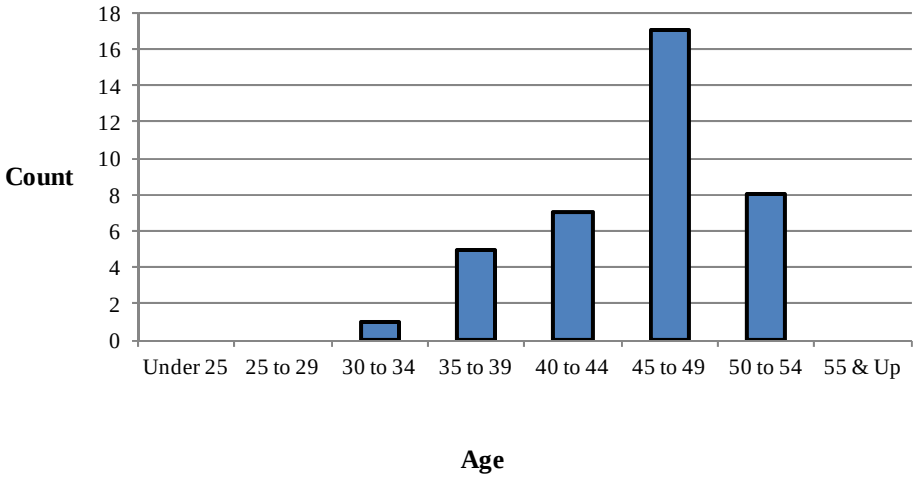
SUMMARY OF DEFERRED VESTED MEMBERS

as of December 31, 2012

Total

	Number			Current Monthly Benefit at Retirement		
Age	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	$ 0	$ 0	$ 0
25 to 29	0	0	0	0	0	0
30 to 34	1	0	1	0	0	0
35 to 39	4	1	5	5,920	1,047	6,967
40 to 44	5	2	7	10,725	1,091	11,816
45 to 49	17	0	17	38,966	0	38,966
50 to 54	8	0	8	16,077	0	16,077
55 & Up	0	0	0	0	0	0
Total	35	3	38	$71,688	$2,138	$73,826

Age Distribution

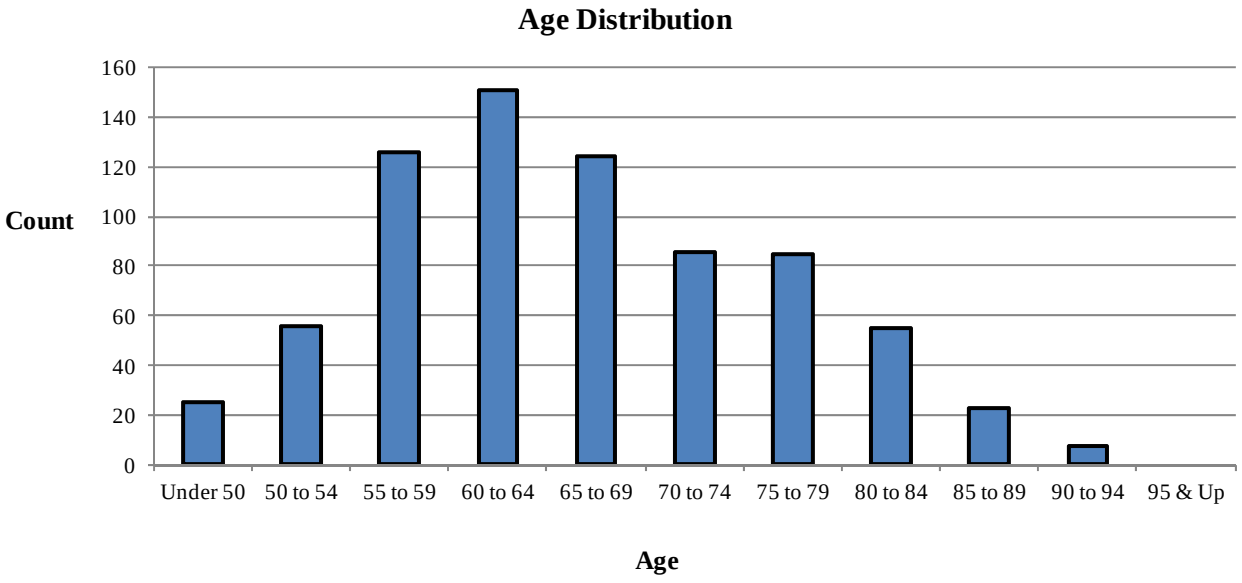


SUMMARY OF RETIRED MEMBERS

as of December 31, 2012

Total

	Number			Current Monthly Benefit at Retirement		
Age	Police	Fire	Total	Police	Fire	Total
Under 50	18	7	25	$ 58,197	$ 23,586	$ 81,783
50 to 54	33	23	56	119,449	73,396	192,845
55 to 59	63	63	126	189,581	185,313	374,894
60 to 64	62	89	151	172,422	244,272	416,694
65 to 69	67	57	124	150,093	146,988	297,081
70 to 74	40	46	86	86,464	94,146	180,610
75 to 79	37	48	85	66,294	102,561	168,855
80 to 84	23	32	55	37,765	51,809	89,574
85 to 89	10	13	23	12,828	21,002	33,830
90 to 94	5	3	8	7,833	3,040	10,873
95 & Up	0	0	0	0	0	0
Total	358	381	739	$900,926	$946,113	$1,847,039

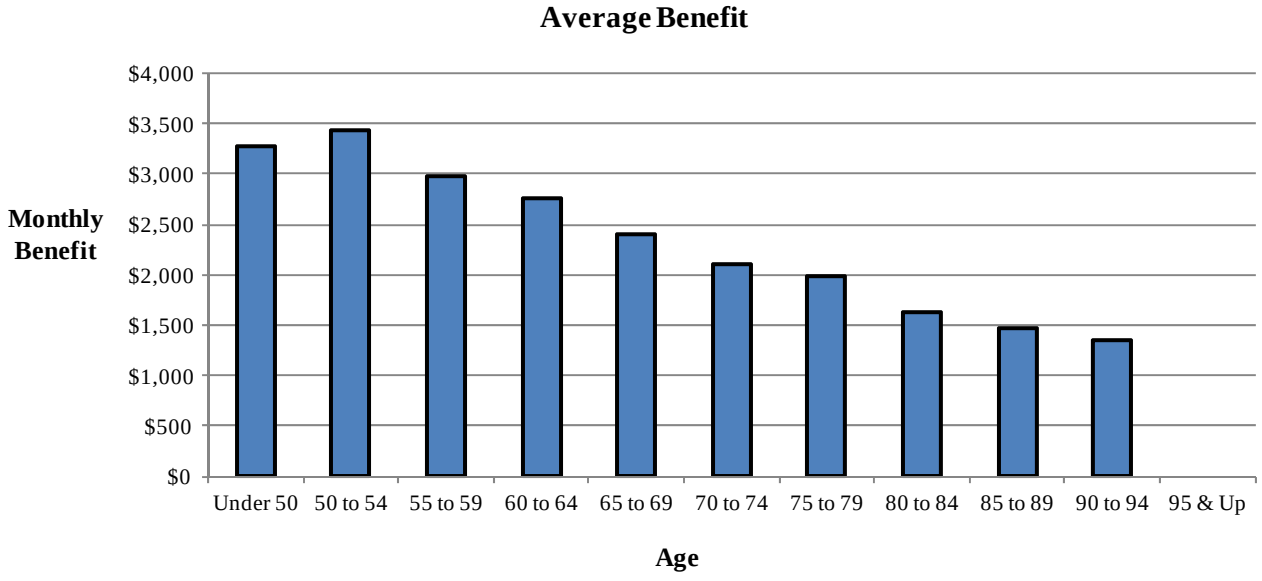


SUMMARY OF RETIRED MEMBERS

as of December 31, 2012

Total

Age	Number			Current Monthly Benefit at Retirement		
	Male	Female	Total	Male	Female	Total
Under 50	17	8	25	$ 54,557	$27,226	$ 81,783
50 to 54	54	2	56	186,820	6,025	192,845
55 to 59	123	3	126	368,431	6,463	374,894
60 to 64	150	1	151	414,636	2,058	416,694
65 to 69	121	3	124	291,414	5,667	297,081
70 to 74	84	2	86	177,085	3,525	180,610
75 to 79	83	2	85	165,831	3,024	168,855
80 to 84	54	1	55	87,529	2,045	89,574
85 to 89	23	0	23	33,830	0	33,830
90 to 94	8	0	8	10,873	0	10,873
95 & Up	0	0	0	0	0	0
Total	717	22	739	$1,791,006	$56,033	$1,847,039

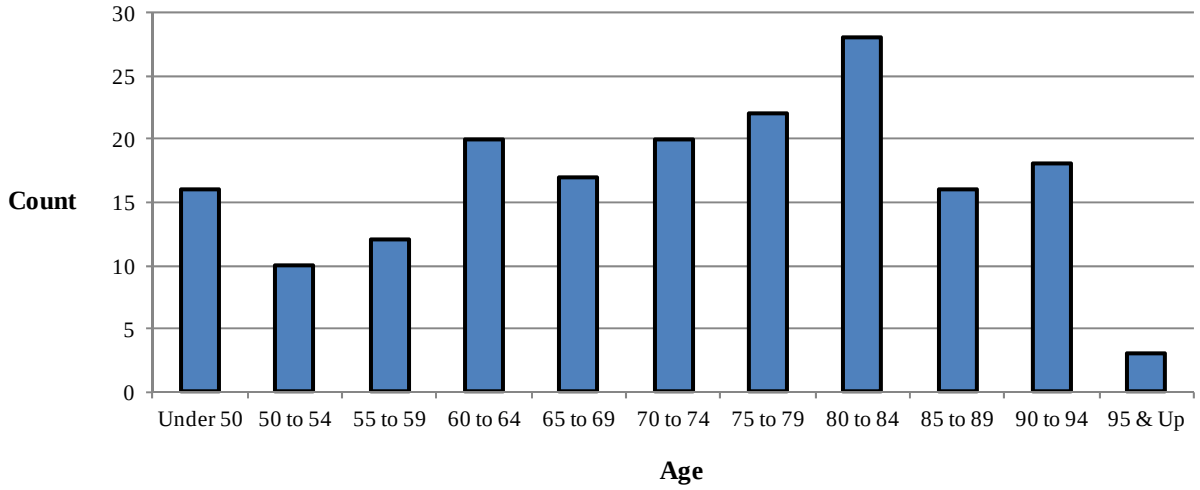


SUMMARY OF BENEFICIARIES
as of December 31, 2012

Total

Age	Number			Current Monthly Benefit at Retirement		
	Police	Fire	Total	Police	Fire	Total
Under 50	9	7	16	$ 6,412	$ 9,194	$ 15,606
50 to 54	5	5	10	5,747	9,378	15,125
55 to 59	6	6	12	8,737	14,221	22,958
60 to 64	6	14	20	12,512	22,611	35,123
65 to 69	13	4	17	21,290	5,157	26,447
70 to 74	10	10	20	13,798	17,541	31,339
75 to 79	9	13	22	14,565	20,349	34,914
80 to 84	16	12	28	22,510	15,175	37,685
85 to 89	5	11	16	5,223	11,084	16,307
90 to 94	5	13	18	4,284	12,754	17,038
95 & Up	3	0	3	2,605	0	2,605
Total	87	95	182	$117,683	$137,464	$255,147

Age Distribution

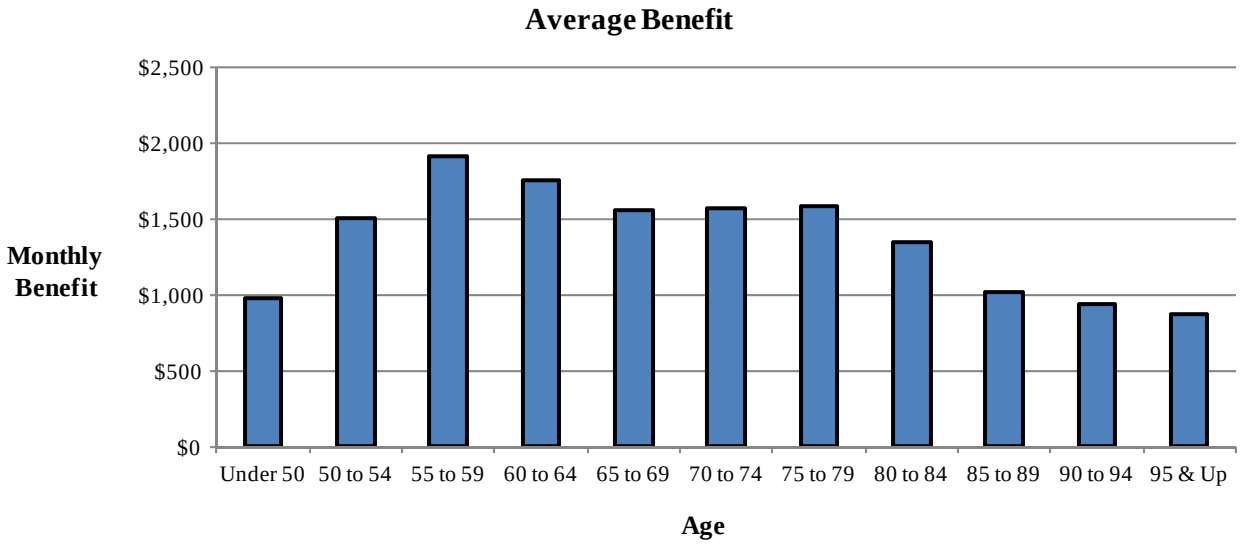


SUMMARY OF BENEFICIARIES

as of December 31, 2012

Total

Age	Number			Current Monthly Benefit at Retirement		
	Male	Female	Total	Male	Female	Total
Under 50	7	9	16	$3,384	$ 12,222	$ 15,606
50 to 54	0	10	10	0	15,125	15,125
55 to 59	0	12	12	0	22,958	22,958
60 to 64	0	20	20	0	35,123	35,123
65 to 69	1	16	17	2,232	24,215	26,447
70 to 74	0	20	20	0	31,339	31,339
75 to 79	0	22	22	0	34,914	34,914
80 to 84	0	28	28	0	37,685	37,685
85 to 89	0	16	16	0	16,307	16,307
90 to 94	0	18	18	0	17,038	17,038
95 & Up	0	3	3	0	2,605	2,605
Total	8	174	182	$5,616	$249,531	$255,147



Summary of Benefit Provisions

Plan A is applicable to members who entered the System between January 1, 1965 and December 31, 1978 and members who entered prior to January 1, 1965 and elected Plan A coverage.

Plan B is applicable to members who entered the System prior to January 1, 1965 and elected Plan B coverage.

Plan C is applicable to members entering the System after December 31, 1978.

SERVICE RETIREMENT

Eligibility – Plan A and Plan B: 20 years of service, regardless of age.

Eligibility – Plan C: 30 years of service, regardless of age; or 20 years of service at age 50; or 10 years of service, but less than 20 years at age 55.

Amount of Pension – all plans: Service times 2.5% of Final Average Salary to a maximum of 75% of Final Average Salary.

Final Average Salary – all plans: Average for the 3 consecutive years of service which produce the highest average and which are within the last 10 years of service.

DEFERRED RETIREMENT (VESTED TERMINATION)

Eligibility – all plans: 10 years of service; 20 years of service required to be eligible for survivor benefits.

Amount of Pension – all plans: 2.5% of Final Average Salary times years of service with payments deferred until age 55 (age 50 for Plan C members with 20 or more years of service). Vested deferred pensions for Plan C are adjusted during the deferral period based on changes in National Average Earnings, up to 5.5% annual adjustments (effective for post-1999 terminations).

SERVICE-CONNECTED DISABILITY

Eligibility – all plans: Permanent inability to perform the duties of position; no service retirement.

Amount of Pension – all plans: 75% of final salary rate if accident, 50% if disease.

Miscellaneous Conditions – all plans: Pension plus earnings from gainful employment cannot exceed current salary for rank held at time of disability. Pension recomputed at age 55 using service retirement formula, updated final average salary and service credit for period of disability.

NON-SERVICE DISABILITY

Eligibility – all plans: Permanent inability to perform duties of position; requires 7 years of service and under age 55.

Amount of Pension – all plans: 30% of Final Average Salary plus 1% of Final Average Salary times service over 7 years; maximum is 50% of Final Average Salary.

Miscellaneous Conditions – all plans: Pension plus earnings from gainful employment cannot exceed current salary for rank held at time of disability.

SERVICE-CONNECTED DEATH

Eligibility – all plans: Death resulting directly from service-connected causes; no service requirement.

Amount of Pension – all plans: Surviving spouse – 50% of final Salary plus 10% of final Salary for each child under age 18 to a maximum of 75% of final Salary; terminates upon remarriage prior to age 40 for pensions effective prior to January 1, 2000.

Children (no surviving spouse's pension payable) – 20% of final Salary for each child under age 18 to a maximum of 60% of final Salary.

NON-SERVICE DEATH

Eligibility – Plan A and Plan C: Death after 3 years of service.

Eligibility – Plan B: Death after 20 years of service.

Amount of Pension – Plan A and Plan C: Surviving spouse – 35% of Final Average Salary plus 1% of Final Average Salary for each year of service over 3 to a maximum of 50% of Final Average Salary, plus 10% of Final Average Salary for each child under age 18 to an overall maximum of 66 2/3% of Final Average Salary; terminates upon remarriage prior to age 40 for pensions effective prior to January 1, 2000.

Children (no surviving spouse's pension payable) – 15% of Final Average Salary for each child under age 18 to a maximum of 50% of Final Average Salary.

Amount of Pension – Plan B: Surviving spouse – 50% of final Salary.

Children (no surviving spouse's pension payable) – children under 18 share equally a benefit of 50% of final Salary.

DEATH AFTER RETIREMENT

Eligibility – all plans: Surviving spouse must have been married to retired employee for one year or more at time of death, if retired after January 1, 2000. If retired prior to January 1, 2000, must have been married to retired employee at retirement. Member must have retired with at least 20 years of service.

Amount of Pension – Plan A and Plan C: Surviving spouse – 35% of Final Average Salary plus 1% of Final Average Salary times Service over 3 years to a maximum of 50% of Final Average Salary, plus 10% of Final Average Salary for each child under 18 to an overall maximum of 66 2/3% of Final Average Salary. Post-retirement adjustments are granted from date of retirement to date of death. Terminates upon remarriage prior to age 40 for those retiring prior to January 1, 2000.

Children (no surviving spouse's pension payable) – 15% of Final Average Salary for each child under age 18 to a maximum of 50% of Final Average Salary.

Amount of Pension – Plan B: Surviving spouse – 50% of final Salary.

Children (no surviving spouse's pension payable) – children under 18 share equally a benefit of 50% of final Salary.

NON-VESTED TERMINATION

Eligibility – all plans: Termination of employment and no pension is or will become payable.

Amount of Benefit – all plans: Refund of member's contributions plus 5% annual interest.

FUNERAL BENEFIT

Eligibility – Plan A and Plan C: Death of member who retired after November 21, 1973.

Eligibility – Plan B: Death of retired member

Amount of Benefit – Plan A and Plan C: $750

Amount of Benefit – Plan B: $100 if member retired on or prior to November 21, 1973; $750 if member retired after November 21, 1973.

POST-RETIREMENT ADJUSTMENTS OF PENSIONS

Eligibility – all plans: Completion of 36 months of retirement.

Annual Amount – all plans: 2% of the original base amount of benefit (simple COLA).

BACKDROP (DEFERRED RETIREMENT OPTION PLAN)

Eligibility: Member must be eligible to retire under service retirement provisions at the effective date of the BackDROP.

Amount: Under the BackDROP, the member may elect a benefit based on a retirement date up to 60 months prior to the current date. The monthly benefit is computed based on service, Final Average Salary and benefit formula at the selected prior date. The DROP account available to the retiring member is the computed benefit multiplied by the number of months of BackDROP plus applicable post-retirement adjustments and 5% annual interest, compounded monthly. Members are eligible to elect a sixty month BackDROP beginning January 1, 2003.

EMPLOYEE CONTRIBUTIONS

Plan A: 8% of salary
Plan B: 6% of salary
Plan C: 7% of salary

These member contribution rates include the 1% decrease effective in 1998 in recognition of the full funding of actuarial liabilities.

CITY CONTRIBUTIONS

Actuarially determined amounts sufficient to satisfy K.S.A. 1977 Suppl. 12-5002.

UNUSED SICK LEAVE

Each bi-weekly service credit of accumulated unused sick leave is converted to a service credit for the purpose of computing annual benefit amounts.

ACTUARIAL COST METHOD

The actuarial cost method is a procedure for allocating the actuarial present value of pension benefits and expenses to time periods. The method used for the valuation is known as the Entry Age Normal actuarial cost method, and has the following characteristics:

(i) The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement.

(ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered compensation.

(iii) Normal costs for Plans A and B (closed plans) were based on Plan C (open plan) assumptions and benefit conditions.

The Entry Age Normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's assumed pensionable compensation rates between the entry age of the member and the assumed exit ages. By applying the Entry Age Normal cost method in the fashion described in (iii), the ultimate normal cost will remain level as a percent of active member payroll (if actuarial assumptions are realized) as Plan A and Plan B members leave active status and are replaced by members entering Plan C.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called actuarial liability. Deducting actuarial assets from the actuarial liability determines the unfunded actuarial liability or (surplus). The unfunded actuarial liability/(surplus) is financed as a level percent of member payroll over an open 20-year period.

ACTUARIAL ASSUMPTIONS

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and membership information of the Retirement System, using the actuarial cost method.

The principal areas of risk which require experience assumptions about future activities of the Retirement System are:

(i) Long-term rates of investment return to be generated by the assets of the System

(ii) Patterns of pay increases to members

(iii) Rates of mortality among members, retirees and beneficiaries

(iv) Rates of withdrawal of active members

(v) Rates of disability among active members

(vi) The age patterns of actual retirements

In making a valuation, the monetary effect of each assumption is calculated for as long as a present current member survives – a period of time which can be as long as a century.

Actual experience of the Retirement System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experiences. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time, one or more of the assumptions are modified to reflect experience trends (but not random or temporary year-to-year fluctuations). A complete review of the actuarial assumptions was completed in 2009. The use of updated assumptions was effective with the December 31, 2009 valuation.

Investment Rate of Return (net of administrative expenses): This assumption is 7.75% a year, compounded annually and consists of 3.5% long-term price inflation and a 4.25% real rate of return over price inflation. This assumption, used to equate the value of payments due at different points in time, was adopted by the Board and was first used for the December 31, 1980 valuation, although the allocation between inflation and real return has changed periodically, most recently in 2009.

Salary Increase Rates: These rates are used to project current salary amounts to those upon which a benefit will be based.

Years of Service	Annual Rate of Salary Increase for Sample Service Durations			
	Inflation Component	Productivity Component	Merit and Longevity	Total
1	3.50%	0.50%	2.75%	6.75%
5	3.50	0.50	2.75	6.75
10	3.50	0.50	2.75	6.75
15	3.50	0.50	2.75	6.75
20	3.50	0.50	1.00	5.00
25	3.50	0.50	1.00	5.00
30	3.50	0.50	1.00	5.00

The assumption was first used for the December 31, 2009 valuation.

The salary increase assumptions will produce 4.0% annual increases in active member payroll (the inflation and productivity base rate) given a constant active member group size. This is the same payroll growth assumption used to amortize the unfunded actuarial liability. The real rate of return over assumed wage growth is 3.75% per year.

Changes actually experienced in average pay and total payroll have been as follows:

	Year Ended					5 Year (Average) Compounded Annual Increase
	12/31/12	12/31/11	12/31/10	12/31/09	12/31/08	
Average Pay	(0.3)%	0.2%	0.7%	3.2%	6.4%	2.6%
Total Payroll	(0.7)%	0.1%	(0.3)%	5.5%	4.8%	3.0%

Mortality Table: This assumption is used to measure the probabilities of members dying.

Healthy Retirees
And Beneficiaries: RP-2000 Healthy Annuitant Table for Males and Females

Disabled Retirees: RP-2000 Disabled Table for Males and Females

Active Members: RP-2000 Employee Table for Males and Females

The RP-2000 Tables are used with generational mortality.

Sample Ages[(1)]	Present Value of $1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	$138.63	$141.98	32.3	34.6
55	132.05	135.41	27.6	29.7
60	122.80	127.04	23.0	25.1
65	111.13	116.91	18.5	20.7
70	97.31	104.80	14.5	16.7
75	81.63	90.90	10.9	13.0
80	65.36	75.76	7.9	9.8
85	49.97	60.20	5.6	7.1

(1) Ages in 2000

This table was first used for the December 31, 2004 actuarial valuation.

Rates of Retirement and BackDROP (Deferred Retirement Option Plan) Elections: This assumption is used to measure the probability of eligible members retiring from active employment and applicable elections under the BackDROP program.

Percent Retiring within Year

Plans A & B			Plan C		
Service of Member	Police	Fire	Age of Member	Police	Member
28 or less	5%	5%	50	10%	5%
29	5	5	51	10	5
30	10	5	52	10	5
31	10	5	53	10	10
32	30	25	54	10	10
33	50	25	55	10	10
34	50	25	56	30	20
35	100	100	57	30	20
Over 35	100	100	58	30	20
			59	30	20
			60	100	100
			Over 60	100	100

These rates were first used for the December 31, 2009 valuation.

In addition, we assumed members who retire under service retirement provisions elect a BackDROP of up to 60 months which maximizes the actuarial value of the retirement benefit determined as of the retirement date. For the determination of actuarial value, the funding valuation assumptions are used.

Rates of Separation from Active Membership: This assumption measures the probabilities of a member terminating employment. The rates do not apply to members who are eligible to retire.

Sample Ages	Years of Service	Percent Separating Within Year	
		Police	Fire
ALL	0	10.00%	8.00%
	1	8.00	6.00
	2	6.00	4.50
	3	4.00	3.00
	4	3.00	2.00
25	Over 4	3.00	1.00
30		3.00	1.00
35		2.50	0.95
40		1.90	0.85
45		0.70	0.50
50		0.00	0.00
55		0.00	0.00

These rates were first used for the December 31, 2009 valuation.

Forfeiture of Vested Benefits: The assumption is that a percentage of the actuarial present value of vested termination benefits will be forfeited by a withdrawal of accumulated contributions.

Years of Service	Percent Forfeiting
10-14	100%
15 or more	0

This table was first used for the December 31, 2004 actuarial valuation.

Rates of Disability: This assumption measures the probabilities of a member becoming disabled.

Sample Ages	% of Active Members Becoming Disabled During Next Year	
	Police	Fire
20	0.10%	0.09%
25	0.16	0.14
30	0.33	0.30
35	0.55	0.49
40	0.77	0.68
45	0.98	0.87
50	1.20	1.06
55	1.42	1.14

These rates were first used for the December 31, 1999 valuation.
Rates of Recovery from Disability: Assumed to be zero.

Administrative Expenses: Assumed to be paid from investment earnings.

Active Member Group Size: Assumed to remain constant.

Vested Deferred Pensions: Amounts for Plan C are assumed to increase during the deferral period at 4.0% per year. This assumption was changed with the December 31, 2009 valuation.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption: 80% of non retired participants are assumed to be married for purposes of death benefits. In each case, the male was assumed to be 3 years older than the female.

Service Related Death and Disability: All active member deaths and 75% of active member disablements are assumed to be service related.

Pay Increase Timing: Assumed to be mid-year.

Decrement Timing: Decrements of all types are assumed to occur mid-year.

Eligibility Testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year at the start of the year in which the decrement is assumed to occur.

Benefit Service: Service calculated to the nearest month, as of the decrement date, is used to determine the amount of benefit payable.

Other: The turnover decrement does not operate during retirement eligibility.

Miscellaneous Loading Factors: The calculated normal retirement benefits were increased by 4% to account for the inclusion of unused sick leave in the calculation of Service. This assumption was changed with the December 31, 2004 valuation.

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Actuarial Liability	The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as "accrued liability" or "actuarial liability"
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another singe amount or series of amounts, computed on the basis of appropriate assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefit between future normal cost and actuarial liability; sometimes referred to as the "actuarial funding method".
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.
Unfunded Actuarial Liability	The difference between actuarial liability and the valuation assets. Most retirement systems have unfunded actuarial liability. They arise each time new benefits are added and each time an actuarial loss is realized. The existence of unfunded actuarial liability is not in itself bad, anymore than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial liability and the trend in its amount.