GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

WATERFORD TOWNSHIP POLICEMEN AND FIREMEN RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT

DECEMBER 31, 2014

TABLE OF CONTENTS

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September 8, 2015 - Revised

The Retirement Board
Waterford Township
Policemen and Firemen Retirement System
Waterford, Michigan

Dear Board Members:

The results of the December 31, 2014 Actuarial Valuation of the Waterford Township Policemen and Firemen Retirement System are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the Retirement System only in its entirety and only with the permission of the Board.

The purpose of the annual valuation is to measure the System's funding progress, to determine the Township's contribution rate for the fiscal year beginning January 1, 2016 in accordance with established funding policies. The results of the valuation may not be applicable for other purposes. A separate report issued May 20, 2015 includes calculations in accordance with GASB Statement No. 67.

This report should not be relied on for any purposes other than the purpose described. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results. No adjustments have been made for events after December 31, 2014.

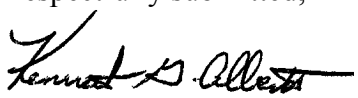
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or 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 the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

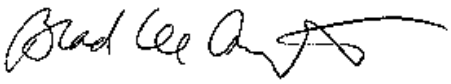
The valuation was based upon information, furnished by the Township's Treasurer, concerning individual participants, terminated participants, retired participants and beneficiaries, plan benefits and financial transactions and assets. Data was checked for reasonableness and missing information, but was not otherwise audited. We are not responsible for the accuracy or completeness of the information provided by the Township.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems and are independent of the plan sponsor and plan administrator. We certify that the information contained in this report is accurate and fairly presents the actuarial position of the Waterford Township Policemen and Firemen Retirement System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. The actuarial assumptions used for the valuation produce results which are reasonable.

Brad Lee Armstrong is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Respectfully submitted,





Kenneth G. Alberts

Brad Lee Armstrong, ASA, EA, MAAA

KGA/BLA:mrb

SECTION A

VALUATION RESULTS

COMPUTED CONTRIBUTIONS FOR THE FISCAL YEAR BEGINNING JANUARY 1

Contributions for	Contributions Expressed as Percents of Annual Pay		
	2016	**2015**	**2014**
Normal Cost			
Age and service pensions	20.41%	20.43%	19.54%
Death-in-service	0.55%	0.56%	0.90%
Disability pensions	2.48%	2.48%	2.41%
Total	23.44%	23.47%	22.85%
Member's Contributions			
Gross contributions	5.66%	5.61%	5.58%
Less prospective refunds	0.25%	0.24%	0.24%
Available for pensions	5.41%	5.37%	5.34%
Township's Normal Cost	18.03%	18.10%	17.51%
Unfunded Actuarial Accrued Liabilities			
Retirees and beneficiaries	0.00%	0.00%	0.00%
Active members*	22.33%	18.43%	18.75%
Total	22.33%	18.43%	18.75%
Township's Total Contribution Rate	**40.36%**	**36.53%**	**36.26%**
Township's Dollar Contribution^	**$3,188,351**	**$3,263,241**	**$3,386,289**

** Amortized as a level dollar contribution over a period of 20 years for Fiscal Year 2016. Fiscal years 2015 and 2014 were amortized as level percent-of-payroll periods over 21 years and 22 years respectively.*

^ Computed at the end of the calendar year, based on the valuation payroll projected to the end of the contribution year, and adjusted for interest.

Alternative Payment Timing	Contribution
End of Fiscal Year (current method)	$ 3,188,351
Middle of Fiscal Year #	3,082,296
Beginning of Fiscal Year	2,979,767

 # Equivalent to making 12 monthly contributions in the amount of $256,858.

ACTUARIAL BALANCE SHEET – DECEMBER 31, 2014

Present Resources and Expected Future Resources

A.	Valuation assets	
	1. Net assets from system financial statements (market value)	$ 88,104,799
	2. Valuation adjustment	(3,639,756)
	3. Valuation assets	84,465,043
B.	Actuarial present value of expected future employer contributions	
	1. For normal costs	11,745,075
	2. For unfunded actuarial accrued liabilities	19,132,672
	3. Total	30,877,747
C.	Actuarial present value of expected future member contributions	3,863,304
D.	Total Actuarial Present Value of Present and Expected Future Resources	$119,206,094

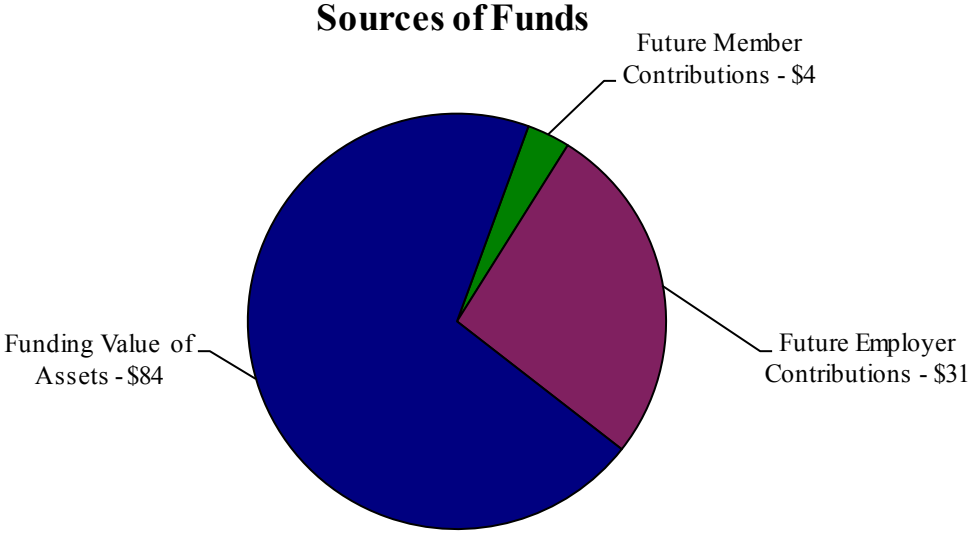
Actuarial Present Value of Expected Future Benefit Payments and Reserves

A.	To retirees and beneficiaries	$ 58,938,076
B.	To vested terminated members	905,056
C.	To present active members	
	1. Allocated to service rendered prior to valuation date	43,754,583
	2. Allocated to service likely to be rendered after valuation date	15,608,379
	3. Total	59,362,962
D.	Total Actuarial Present Value of Expected Future Benefit Payments	$119,206,094

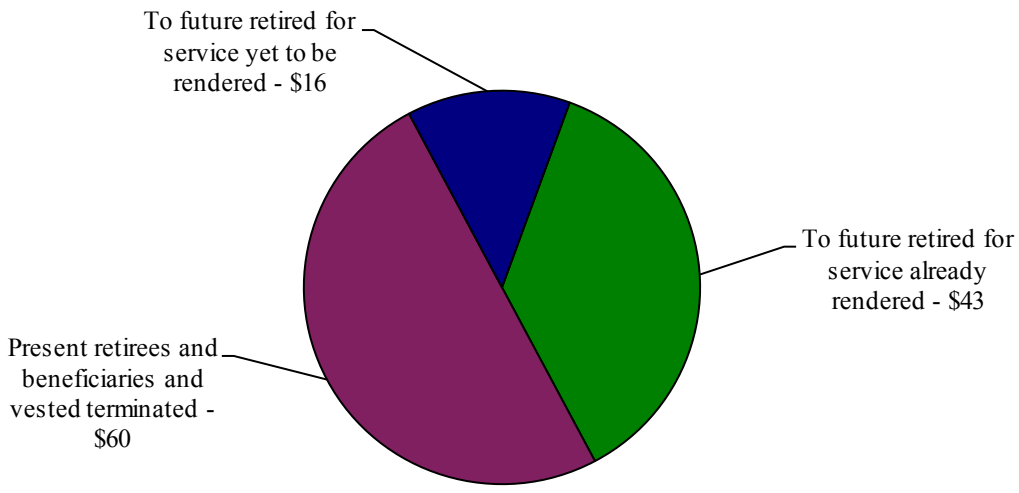
FINANCING $120 MILLION OF BENEFIT PROMISES
DECEMBER 31, 2014

(In Millions)

Sources of Funds



Uses of Funds



COMMENTS

EXPERIENCE: Experience during the year ending December 31, 2014 was more favorable than expected. The primary source of the gains and losses were as follows:

Gains:

- Investment return (the recognized rate of return was 8.9% on a Funding Value basis compared with a 7.0% assumed rate of return)
- Salary increases less than assumed (members active at both the beginning and end of the year experienced average salary increases of approximately 94% of assumed)
- Vested terminations (1 vested member quit versus 0.1 expected)

Losses:

- Retiree mortality losses (less benefits were removed from the pension rolls than expected)
- Retirements (benefits for members who retired were higher than projected)
- Technical adjustments made to improve the manner in which the current DROPped members are valued
- Data adjustments (2 members purchased or reinstated time)

In aggregate, gains exceeded losses resulting in an overall experience gain of $1,460,559 which is approximately 1.46% of the beginning of year accrued liabilities.

INVESTMENT RETURN: Assets yielded an approximate rate of return of 5.36% on a market value basis for the year ending December 31, 2014. While this is below the 7% investment return assumption, the valuation employs a smoothing process that recognizes 25% of this year's market gain plus 25% of each of the last three years of market gains and losses (up to the point of reset). Overall, the aggregate recognized rate of return on valuation assets was 8.9%. The funding value rate of return being larger than the market value rate of return is primarily attributed to continued phase-in of the 2013 fiscal year investment gains (the phase-in of the 2012 gain was slightly more than offset by the phase-in of the 2011 loss). Please refer to page B-14 for more detail.

VALUATION RESULTS: The funding ratio on a Funding Value of Assets basis increased from 79.2% to 81.5% (85.0% on Market Value of Assets). The computed contribution rate increased from 36.53% to 40.36%. However, due to the payroll growing slower than assumed, the actual contributions decreased from $3,263,241 (for Fiscal Year 2015) to $3,188,351 (for Fiscal Year 2016). This dollar amount is assuming the System is contributing at the end of the fiscal year.

ASSUMPTIONS AND METHODS: The amortization method was changed to level dollar to coincide with the closure of this System to firefighters hired after December 31, 2011 and Police Patrol hired after November 1, 2014. This policy should be monitored annually and adjusted as needed. No other changes in assumptions or methods were made. This change resulted in an increase in the computed contribution of approximately $227,000.

AMORTIZATION: Unfunded accrued liabilities were amortized over a closed level dollar 20-year period (original period of 22 years as a percent-of-payroll began with the December 31, 2012 valuation). This closed period was adopted at the October 2013 Board meeting. Due to the closure of this System, this policy should be monitored annually and adjusted as needed.

COMMENTS

RISKS TO FUTURE EMPLOYER CONTRIBUTION REQUIREMENTS: There are ongoing risks to future employer contribution requirements to which the Retirement System is exposed, such as:

- Actual and Assumed Investment Rate of Return
- Actual and Assumed Mortality Rates
- Amortization Policy

RECOMMENDATION: We continue to recommend that a mini Experience Study be performed to review assumptions and methods, focusing on the economic assumptions. The last Experience Study was performed in 2000. While we believe the investment return assumption is reasonable, recent changes in the forward economic outlook have resulted in many systems reducing their investment return assumption.

CONCLUSION: The Waterford Township Policemen and Firemen Retirement System is in sound financial condition in accordance with actuarial principles of level dollar funding presuming continued timely receipt of the required contributions.

DERIVATION OF EXPERIENCE GAIN (LOSS)
YEAR ENDED DECEMBER 31, 2014

Actual experience will never (except by coincidence) exactly match assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below, along with a year-by-year comparative schedule.

	Year Ended December 31, 2014
(1) UAAL at start of year	$20,894,186
(2) Normal cost from last valuation (Total)	2,014,014
(3) Actual employee contributions	446,148
(4) Actual employer contributions (paid at end of year)	3,386,289
(5) Interest	1,517,468
(6) Expected UAAL before changes: (1) + (2) - (3) + (4)	20,593,231
(7) Change from method change	-
(8) Change from revised actuarial assumptions	-
(9) Expected UAAL after changes: (5) + (6) + (7)	20,593,231
(10) Actual UAAL at end of year	19,132,672
(11) Gain (loss): (8) - (9)	$ 1,460,559

Valuation Date December 31	Experience Gain (Loss) as % of Beginning Accrued Liability
2005	(1.0)%
2006	3.1 %
2007	3.1 %
2008	(12.8)%
2009	1.8 %
2010	(1.1)%
2011	3.1 %
2012	(2.5)%
2013	5.1 %
2014	**1.5 %**

COMPARATIVE SCHEDULE

Valuation Date	Fiscal Year	Actuarial Accrued Liabilities	Accrued Assets	% Funded	Unfunded Actuarial Accrued Liabilities & Reserves			Township's Contribution Rate		
					Dollars	Amortiz. Period	% of Payroll	Payroll Percents	Dollars	
									Recommended	Actual
12-31-90*	1991	$ 17,194,930	$ 15,218,502	88.5 %	$ 1,976,428	25 yrs.	40 %	15.82 %	$ 775,050	$ 775,050
12-31-95*	1996	33,605,167	26,658,541	79.3 %	6,946,626	20	113 %	22.52 %	1,494,613	1,494,613
12-31-96	1997	36,256,291	30,300,647	83.6 %	5,955,644	19	94 %	21.46 %	1,466,088	1,466,088
12-31-97*	1998	39,666,654	33,985,689	85.7 %	5,680,965	18	83 %	21.09 %	1,555,632	1,555,632
12-31-98*	1999	43,606,490	39,341,442	90.2 %	4,265,048	17	60 %	20.23 %	1,568,120	1,568,120
12-31-99*	2000	47,593,121	44,260,803	93.0 %	3,332,318	16	43 %	19.16 %	1,605,659	1,605,659
12-31-00	2001	52,005,555	48,100,441	92.5 %	3,905,114	15	47 %	19.68 %	1,755,033	1,755,033
12-31-01#	2002	57,645,151	50,655,089	87.9 %	6,990,062	30	80 %	22.76 %	2,153,300	2,153,300
12-31-02	2003	62,184,758	50,344,359	81.0 %	11,840,399	29	129 %	25.34 %	2,510,091	2,510,091
12-31-03	2004	67,536,268	50,556,308	74.9 %	16,979,960	28	162 %	27.27 %	3,078,138	3,078,138
12-31-04	2005	68,684,048	52,252,682	76.1 %	16,431,366	27	164 %	27.61 %	2,975,839	2,975,839
12-31-05*	2006	75,117,790	55,437,735	73.8 %	19,680,055	26	194 %	27.18 %	2,968,691	2,968,691
12-31-06*	2007	78,594,252	61,219,555	77.9 %	17,374,697	25	175 %	25.97 %	2,775,163	2,775,163
12-31-07*	2008	83,243,210	66,933,522	80.4 %	16,309,688	24	158 %	23.79 %	2,638,538	2,638,538
12-31-08	2009	87,342,563	60,449,461	69.2 %	26,893,102	23	247 %	29.41 %	3,451,506	3,451,506
12-31-09	2010	89,458,873	64,196,851	71.8 %	25,262,022	22	229 %	28.79 %	3,416,401	3,416,401
12-31-10	2012	94,441,518	68,226,205	72.2 %	26,215,313	21	292 %	33.37 %	3,356,274	3,356,274
12-31-11*@	2013	91,114,884	70,482,994	77.4 %	20,631,890	19	254 %	37.40 %	3,251,498	3,251,498
12-31-12@	2014	95,799,717	73,420,924	76.6 %	22,378,793	22	255 %	36.26 %	3,386,289	3,386,289
12-31-13#	2015	100,292,714	79,398,528	79.2 %	20,894,186	21	246 %	36.53 %	3,263,241	
12-31-14	**2016**	**103,597,715**	**84,465,043**	**81.5 %**	**19,132,672**	**20**	**242 %**	**37.49 %**	**2,961,627**	
12-31-14@	**2016**	**103,597,715**	**84,465,043**	**81.5 %**	**19,132,672**	**20**	**242 %**	**40.36 %**	**3,188,351**	

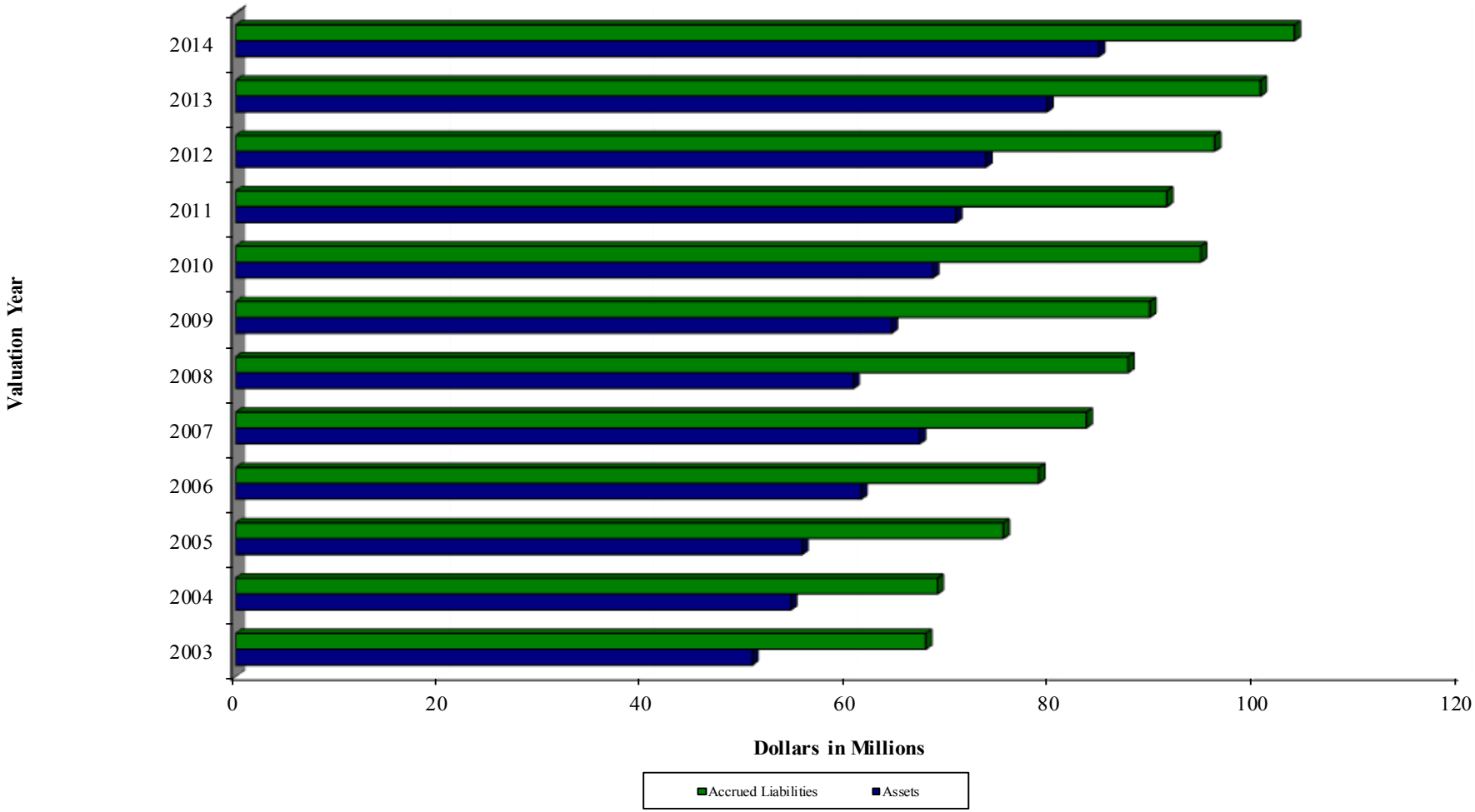
* *Changes in benefits.* # *Changes in assumptions.* @ *Changes in methods.*

The Ratio of Valuation Assets to AAL is a traditional measure of a retirement system's funding progress. Except in years when the System is amended or actuarial assumptions are revised, this ratio can be expected to increase gradually toward 100%. This ratio is the most appropriate of those described for assessing need for future contributions above the amounts needed to fund the normal cost.

The Ratio of UAAL to Valuation Payroll is another relative index of condition. Unfunded Actuarial Accrued Liabilities (UAAL) represent debt, while active member payroll represents the System's capacity to collect contributions to pay toward debt. The lower the ratio, the greater the financial strength and vice-versa.

None of these funding progress indicators are appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

FUNDING VALUE OF ASSETS & ACCRUED LIABILITIES



2003 Funding Value of Assets Equaled 74.9% of Accrued Liabilities
2014 Funding Value of Assets Equaled 81.5% of Accrued Liabilities

The funded status would be different if based on Market Value of Assets.

SECTION B

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

BRIEF SUMMARY OF BENEFIT PROVISIONS
DECEMBER 31, 2014

Eligibility	Amount
SERVICE RETIREMENT	
25 years of service, regardless of age or age 60 regardless of service.	2.5% of AFC times years of service. The maximum benefit at retirement is 75% of AFC.
Type of average final compensation. (AFC)	Highest 3 out of last 10 years.
Police Officers and Police Supervisors hired after January 1, 2004 and Firefighters hired between February 12, 2007 and December 31, 2011:	
Normal Retirement eligibility at age 55 with 25 years of service or 60 and 10 years. *Firefighters* can also retire at any age with 30 years of service.	2.3% of AFC times years of service up to 25 years and 1.5 % for each year of service beyond 25 years of service to a maximum of 71% of AFC.
Type of Average Final Compensation. (AFC)	Highest 3 out of last 5 years.

COVERED COMPENSATION

Management: Average Final Compensation includes base pay.

Non-Management: Average Final Compensation includes base pay plus holiday, overtime, and longevity pay, if any.

DEFERRED RETIREMENT	
8 years of service for Management & Administrative. *All others:* 10 or more years of service.	Computed as service retirement but based upon service, AFC and benefit formula in effect at termination. Benefit begins at date retirement would have occurred had member remained in employment.
DEATH AFTER RETIREMENT SURVIVOR'S PENSION	
Payable to a surviving spouse, if any, upon the death of a retired member who was receiving a straight life pension which was effective July 1, 1975 or later.	Spouse's pension equals 60% of the straight life pension the deceased retiree was receiving.
NON-DUTY DEATH-IN-SERVICE SURVIVOR'S PENSION	
Payable to a surviving spouse, if any, upon the death of a member with 20 or more years of service. (10 years of service for Fire and COAM.)	Accrued straight life pension actuarially reduced in accordance with an Option I election.

Eligibility	Amount
DUTY DEATH-IN-SERVICE SURVIVOR'S PENSION	
Payable upon the expiration of Worker's Compensation to the survivors of a member who died in the line of duty.	Same amount that was paid by Worker's Compensation.
DUTY DISABILITY	
Payable upon the total and permanent disability of a member in the line of duty.	*To Age 55:* 50% of AFC (62.5% for Police). *At Age 55:* Same as Service Retirement Pension with service credit from date of disability to age 55.
NON-DUTY DISABILITY	
Payable upon the total and permanent disability of a member with 5 or more years of service.	*To Age 55:* 1.5% of AFC times years of service. *At Age 55:* Same as Service Retirement Pension.
MEMBER CONTRIBUTIONS	
	Police Patrol Union: 7% of pay. *Management:* 5% of pay. *Others:* 5% of pay. Refund of member contributions at retirement permitted. Merrill Lynch Bond Index determines interest rate used in adjusting pension.
POST-RETIREMENT BENEFIT INCREASES	
Police and Fire Management & Administrative with 25 years of service at Retirement.	Up to 10 annual increases of 2.0% of the original benefit depending upon manager service earned after retirement eligibility. (Each year of manager service in excess of retirement eligibility will entitle a retired manager to 2 annual increases.) Purchased service is used in calculating eligibility for the increases.
SERVICE PURCHASES	
Fire:	Military service prior to employment may be purchased.
Police Officers and Police Supervisors (as of 1/1/2003):	Military and/or sworn service time may be purchased.

EMPLOYER CONTRIBUTIONS

Employer pays an annual contribution based on an actuarial valuation. The employer's actuarially determined rate covers all costs net of employee contributions.

DEFERRED RETIREMENT OPTION PLAN (DROP)

Employees in the Police Officer Union are ineligible to participate in the DROP. Effective January 1, 2012, Police Supervisors are ineligible to DROP.

All Others: A member may participate in the DROP after attaining the minimum requirements for a normal service retirement. A monthly amount equal to the amount that would have been paid had the member retired and current member contributions accumulate in a DROP account. The account is credited with the system's prior calendar year's market rate of return (but not greater than 4% interest) each year. Additions cease at the earlier of 5 years of DROP participation or separation from service, although interest on the DROP account will continue to accrue during such time. Management DROP participants may continue in covered employment after 5 years of participation, but do not accumulate additional service credit or make member contributions. DROP service for Management participants is included for purposes of eligibility for the escalator. Fire DROP participants may continue in covered employment after 5 years of participation or until their 33rd year of service, but do not accumulate additional service credit. Upon actual retirement, the member may receive the DROP account balance in the form of a lump sum or as an additional annuity. Member contributions during the DROP period are not included in the computation of the annuity withdrawal reduction. Upon exit from the DROP, the original monthly amount established upon entry in the DROP continues in addition to any other benefits or adjustments.

MEMBERSHIP

Police Officers and Police Supervisors hired prior to 11/1/2014 participate in this plan. Police Officers hired on or after 11/1/2014 participate in a different plan. Firefighters hired prior to January 1, 2012 participate in this plan. Firefighters hired on or after January 1, 2012 participate in a different plan.

RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

Valuation Date	Added		Removed		Net Increase		Recipients End of Year			
	No.	Annual Pensions*	No.	Annual Pensions*	No.	Annual Pensions*	No.	Active Per Retired	Annual Pensions $	Annual Pensions % of Pay
12-31-90							19	6.6	$ 301,377	6.2%
12-31-91	9	$ 241,278			9	$ 241,278	28	4.7	542,655	10.4%
12-31-92	5	154,622			5	154,622	33	3.9	697,277	12.7%
12-31-93	6	186,809			6	186,809	39	3.2	884,086	16.2%
12-31-94	2	41,750	1	$ 12,024	1	29,726	40	3.2	913,812	15.4%
12-31-95	5	169,807			5	169,807	45	2.9	1,083,619	17.7%
12-31-96	4	171,603	2	43,387	4	128,216	47	2.8	1,211,835	19.2%
12-31-97	1	35,197			1	35,197	48	2.8	1,247,032	18.3%
12-31-98	4	142,508			4	142,508	52	2.7	1,389,540	19.4%
12-31-99	4	158,304			4	158,304	56	2.5	1,547,844	20.0%
12-31-00	11	473,119			11	473,119	67	2.2	2,020,963	24.5%
12-31-01	7	309,566	2	12,121	5	297,445	72	2.0	2,318,408	26.4%
12-31-02	6	280,722	1	18,314	5	262,408	77	1.8	2,580,816	28.0%
12-31-03	2	112,988			2	112,988	79	1.9	2,693,804	25.7%
12-31-04	2	124,967			2	124,967	81	1.8	2,818,771	28.2%
12-31-05	3	107,731	1	22,808	2	84,923	83	1.7	2,903,694	28.6%
12-31-06	7	368,783	1	17,483	6	351,300	89	1.5	3,254,994	32.8%
12-31-07	2	70,478	1	21,268	1	49,210	90	1.6	3,304,204	32.1%
12-31-08	3	110,753	1	30,229	2	80,524	92	1.5	3,384,728	31.0%
12-31-09	2	67,677	2	40,310		27,367	92	1.6	3,412,095	31.0%
12-31-10	20	967,240			20	967,240	112	1.0	4,379,335	48.7%
12-31-11	11 @	485,692	2 #	3,308	9	482,384	121	0.9	4,861,719	60.0%
12-31-12	2	107,504	2	29,823		77,681	121	0.9	4,939,400	56.3%
12-31-13	3	121,877	2	69,094	1	52,783	122	0.9	4,992,183	58.8%
12-31-14	**7**	**281,809**	**1**	**35,976**	**6**	**245,833**	**128**	**0.8**	**5,238,016**	**66.4%**

* *Includes post-retirement adjustments.*

\# *Includes ex-spouse of retired member, as their records were combined because both annuities terminate upon the death of the retiree.*

@ *Does not include an individual whose benefit was counted as part of a retiree's record because both annuities terminate upon the death of the retiree.*

RETIREES AND BENEFICIARIES DECEMBER 31, 2014
TABULATED BY TYPE OF PENSIONS BEING PAID

Type of Pension Being Paid	No.	Annual Pensions
Age and Service Pensions		
Regular	18	$ 504,399
100% Joint & Survivor	3	123,586
Automatic 60% to Spouse	93	4,184,285
Survivor Beneficiary	5	101,998
Totals*	119	4,914,268
Disability Pensions		
Non-Duty	1	6,259
Duty	7	272,758
Survivor Beneficiary of Duty Disability pension	1	44,731
Totals	9	323,748
Total Pensions Being Paid	**128**	**$5,238,016**

* *Includes members (currently 1) that elect to annuitize DROP accounts under one form of payment but chose another form of payment for the remaining annuity.*

RETIREES AND BENEFICIARIES DECEMBER 31, 2014
TABULATED BY ATTAINED AGES

Attained Ages	No.	Annual Pensions
44	1	$ 42,614
45	1	51,348
46	1	37,115
48	3	146,200
49	2	95,668
50	2	89,407
51	3	145,908
52	3	152,664
53	5	218,819
54	3	135,929
55	2	59,223
56	1	44,040
57	7	341,604
58	4	193,251
59	6	234,156
60	3	181,301
61	8	367,429
62	5	264,899
63	7	343,856
64	3	100,128
65	4	121,609
66	6	231,790
67	2	94,877
68	7	282,358
69	4	119,158
70	3	102,040
71	2	81,400
72	7	241,210
73	6	278,712
74	4	136,961
75	2	62,424
76	3	53,076
77	2	33,543
79	1	20,571
81	1	26,136
83	1	24,488
88	1	39,203
92	1	23,124
95	1	19,777
Totals	**128**	**$5,238,016**

DECEMBER 31, 2014
TABULATED BY ATTAINED AGES

VESTED FORMER MEMBERS ELIGIBLE FOR A DEFERRED BENEFIT

Attained Ages	No.	Annual Pensions
38	1	$ 41,327
50	2	49,700
Totals	**3**	**$ 91,027**

MEMBERS LAID-OFF NOT CURRENTLY ELIGIBLE FOR A DEFERRED BENEFIT

Attained Ages	No.	Estimated Annual Pensions	Accumulated Contributions
Totals	**0**	**$ -**	**$ -**

ACTIVE MEMBERS IN VALUATION
COMPARATIVE SCHEDULE

Valuation Date	No.	Valuation Payroll	Average Pay	% Incr. Avg. Pay	Age	Service
12-31-83	90	$ 2,609,414	$28,993	(1.1)%	37.9 yrs.	12.1 yrs.
12-31-84	89	3,144,594	35,333	21.9 %	38.5	12.8
12-31-85	92	2,965,914	32,238	(8.8)%	38.6	12.8
12-31-86	93	3,216,692	34,588	7.3 %	38.7	12.8
12-31-87	108	3,479,743	32,220	(6.8)%	38.2	11.7
12-31-88	118	3,918,499	33,208	3.1 %	37.3	11.1
12-31-89	121	4,465,326	36,904	11.1 %	38.0	11.5
12-31-90	126	4,899,176	38,882	5.4 %	38.5	12.6
12-31-91	132	5,196,147	39,365	1.2 %	37.2	11.1
12-31-92	128	5,483,737	42,842	8.8 %	37.8	11.4
12-31-93	124	5,473,201	44,139	3.0 %	38.0	11.7
12-31-94	126	5,932,902	47,087	6.7 %	38.4	12.2
12-31-95	129	6,136,260	47,568	1.0 %	38.1	12.2
12-31-96	132	6,316,460	47,852	0.6 %	38.3	12.1
12-31-97	135	6,819,832	50,517	5.6 %	38.9	12.6
12-31-98	139	7,166,824	51,560	2.1 %	38.8	12.5
12-31-99	142	7,748,207	54,565	5.8 %	39.0	12.6
12-31-00	147	8,245,245	56,090	2.8 %	37.6	11.2
12-31-01	142	8,789,388	61,897	10.4 %	38.1	11.6
12-31-02	140	9,202,571	65,733	6.2 %	38.4	11.9
12-31-03	151	10,486,469	69,447	5.7 %	38.7	11.8
12-31-04	145	10,013,118	69,056	(0.6)%	39.6	12.8
12-31-05	142	10,147,098	71,458	3.5 %	40.5	13.8
12-31-06	135	9,927,567	73,538	2.9 %	40.8	14.1
12-31-07	141	10,303,747	73,076	(0.6)%	41.0	14.4
12-31-08	141	10,902,847	77,325	5.8 %	41.6	15.0
12-31-09	145	11,024,364	76,030	(1.7)%	41.9	15.4
12-31-10	117	8,984,506	76,791	1.0 %	43.1	16.3
12-31-11	107	8,107,893	75,775	(1.3)%	43.2	16.5
12-31-12	108	8,780,319	81,299	7.3 %	43.9	17.1
12-31-13	107	8,494,364	79,387	(2.4)%	44.4	17.7
12-31-14*	**101**	**7,890,938**	**78,128**	**(1.6)%**	**44.9**	**18.3**

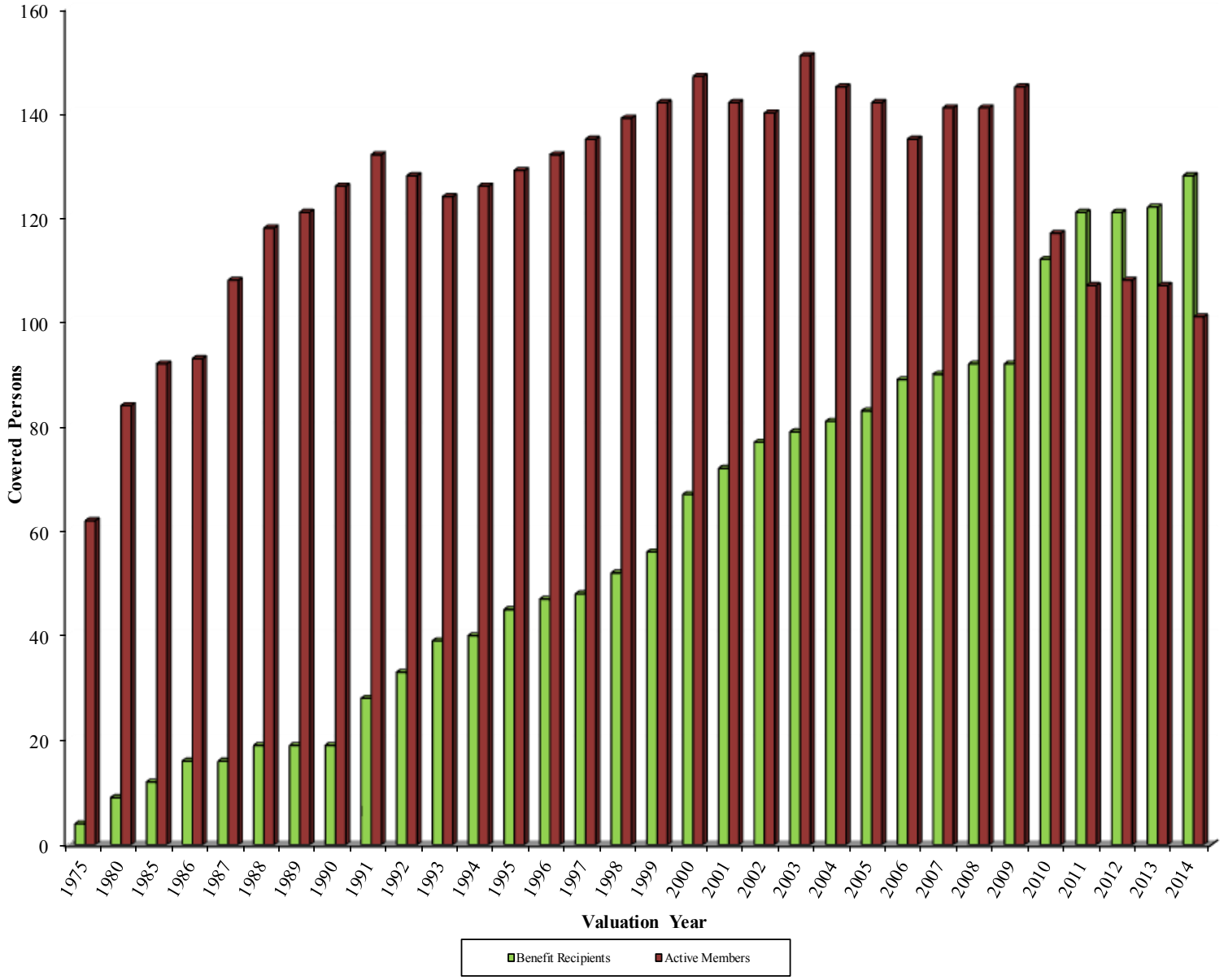
** Valuation Payroll includes adjustment for 27th paycheck during 2014 Fiscal Year.*

ACTIVE MEMBERS ADDED TO AND REMOVED FROM ROLLS

Year	Actual Number Added During Year	Terminations During the Year										Active Members End of Year
		Normal Retirement		Disabled		Died-in-Service		Withdrawal				
								Vested	Other	Total		
		A	E	A	E	A	E	A	A	A	E	
2005	0	0	3.9	2	0.6	0	0.2	0	1	1	1.8	142
2006	0	6	4.6	0	0.6	0	0.2	1	0	1	1.5	135
2007	7	1	3.1	0	0.7	0	0.2	0	0	0	1.2	141
2008	2	1	5.6	1	0.8	0	0.2	0	0	0	1.1	141
2009	5	1	5.6	0	0.8	0	0.2	0	0	0	1.1	145
2010	0	19	6.1	2	0.7	0	0.2	0	9	9	1.1	117
2011	0	7	6.7	2	0.5	1	0.2	0	1	1	0.8	107
2012	3	1	5.2	0	0.5	1	0.2	0	0	0	0.6	108
2013	2	2	5.7	0	0.5	0	0.2	1	0	1	0.5	107
2014	0	5	6.1	0	0.5	0	0.1	1	0	1	0.6	101
10-Year Totals	19	43	52.6	7	6.2	2	1.9	3	11	14	10.3	

A = Actual
E = Expected

ACTIVE MEMBERS & BENEFIT RECIPIENTS



POLICE ACTIVE MEMBERS DECEMBER 31, 2014
BY NEAREST AGE AND YEARS OF SERVICE

Nearest Age	Years of Service to Valuation Date							Totals*	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Valuation Payroll
30-34	1							1	$ 75,298
35-39		1	1					2	145,915
40-44			4	16	1			21	1,569,845
45-49			2	12	6			20	1,566,416
50-54					3	2		5	427,231
55-59									-
60 & Over						1	1	2	204,156
Totals	**1**	**1**	**7**	**28**	**10**	**3**	**1**	**51**	**$3,988,861**

** Includes DROP members.*

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 45.1 years
Service: 18.5 years
Annual Pay: $78,213

FIRE ACTIVE MEMBERS DECEMBER 31, 2014
BY NEAREST AGE AND YEARS OF SERVICE

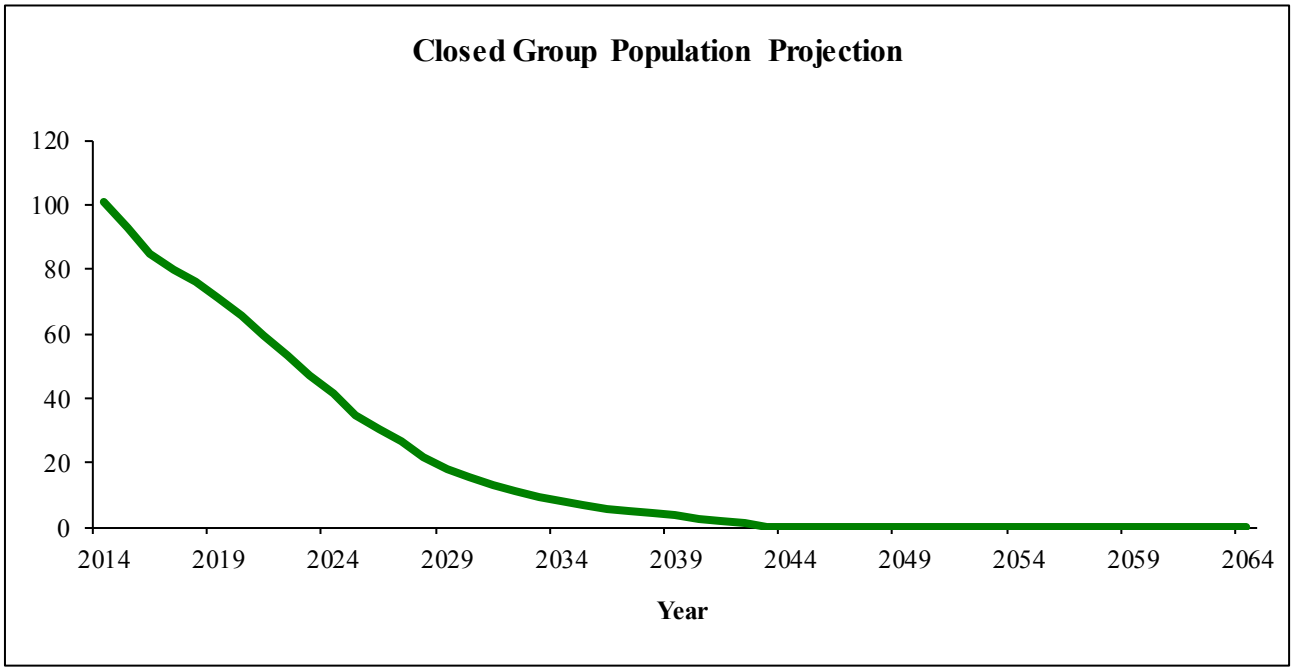
Nearest Age	Years of Service to Valuation Date							Totals*	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No	Valuation Payroll
25-29		4						4	$ 330,332
30-34		3						3	218,877
35-39			3	2				5	413,077
40-44			8	3	1			12	1,049,453
45-49			4	3	1	3		11	922,488
50-54					3	6		9	765,967
55-59					1	3	1	5	433,225
60 & Over						1		1	72,156
Totals		**7**	**15**	**8**	**6**	**13**	**1**	**50**	**$ 4,205,575**

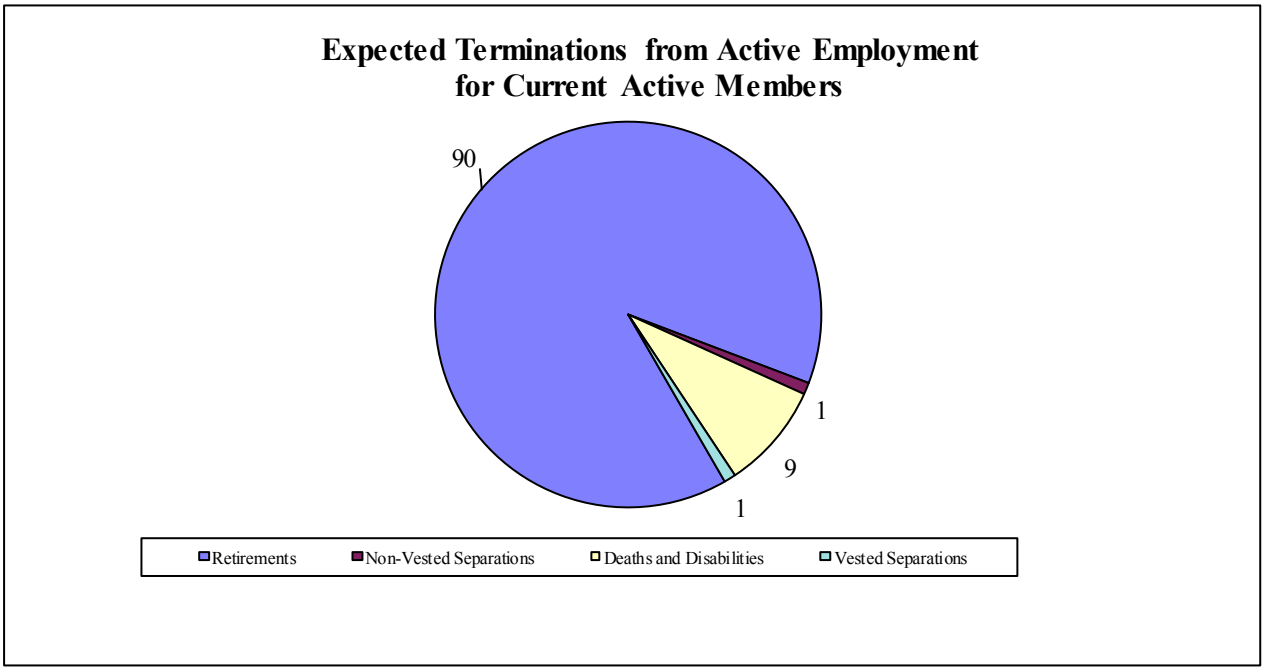
** Includes DROP members.*

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 44.7 years
Service: 18.1 years
Annual Pay: $84,112

EXPECTED DEVELOPMENT OF PRESENT POPULATION
DECEMBER 31, 2014





The charts show the expected future development of the present population in simplified terms. The Retirement System presently covers 101 active members. Eventually, 1 person is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. 91 people are expected to receive monthly retirement benefits either by retiring directly from active service, or by retiring from vested deferred status. 9 people are expected to become eligible for death-in-service or disability benefits.

DEVELOPMENT OF FUNDING VALUE OF ASSETS

Year Ended December 31:	2012	2013	2014	2015	2016	2017
A. Funding Value Beginning of Year	$70,482,994	$73,420,924	$79,398,528			
B. Market Value End of Year	74,612,739	85,450,868	88,104,799			
C. Market Value Beginning of Year	69,537,152	74,612,739	85,450,868			
D. Non-Investment Net Cash Flow	(2,543,910)	(1,576,290)	(1,879,532)			
E. Investment Income						
E1. Market Total: B - C - D	7,619,497	12,414,419	4,533,463			
E2. Amount for Immediate Recognition (7.0%)	4,844,773	5,084,295	5,492,113			
E3. Amount for Phased-In Recognition: E1-E2	2,774,724	7,330,124	(958,650)			
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.25 x E3	693,681	1,832,531	(239,663)			
F2. First Prior Year	(832,617)	693,681	1,832,531	$ (239,663)		
F3. Second Prior Year	776,003	(832,617)	693,681	1,832,531	$ (239,663)	
F4. Third Prior Year		776,004	(832,615)	693,681	1,832,531	$ (239,661)
F5. Total Recognized Investment Gain Before Corridor	637,067	2,469,599	1,453,934	2,286,549	1,592,868	(239,661)
G. Funding Value End of Year						
G1. Preliminary Funding Value End of Year: A+D+E2+F5	73,420,924	79,398,528	84,465,043			
G2. Upper Corridor Limit: 120% x B	89,535,287	102,541,042	105,725,759			
G3. Lower Corridor Limit: 80% x B	59,690,191	68,360,694	70,483,839			
G4. Funding Value End of Year	**73,420,924**	**79,398,528**	**84,465,043**			
G5. Total Recognized Investment Income after Corridor	637,067	2,469,599	1,453,934			
H. Difference between Market & Funding Value: B-G	$ 1,191,815	$ 6,052,340	$ 3,639,756	$ 1,353,207	$ (239,661)	$ 0
I. Recognized Rate of Return	**7.92%**	**10.40%**	**8.85%**			
J. Market Value Rate of Return	11.16%	16.82%	5.36%			
K. Ratio of Funding Value to Market Value	98.40%	92.92%	95.87%			

The Funding Value of Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is lesser than the assumed rate, Funding Value of Assets will tend to be greater than Market Value. The Funding Value of Assets is unbiased with respect to Market Value. At any time it may be either greater or less than Market Value. If recognized and assumed rates of investment income are exactly equal for 3 consecutive years, the Funding Value will become equal to Market Value.

SUMMARY OF CURRENT ASSET INFORMATION

Balance Sheet

Current Assets		Reserve for	
Cash & equivalent	$ 8,439,042		
Fixed income	22,991,953		
Common stock	56,045,063	Member contributions	$ 5,607,078
Real estate	2,301,232	Employer contributions	32,315,793
Foreign investments	0	Retired benefit payments	50,181,928
Other	564,325	Undistributed income	0
Total	$90,341,615	Total Market Value	$ 88,104,799
Accounts Payable	(2,236,816)		
Funding Adjustment	(3,639,756)	Funding Adjustment	(3,639,756)
Total Valuation Assets	$84,465,043	Total Valuation Assets	$ 84,465,043

Receipts and Disbursements

	2014	2013
Valuation Assets - January 1	$79,398,528	$73,420,924
Receipts		
Member contributions	446,148	443,309
Employer contributions	3,386,289	3,251,498
Recognized investment income	7,506,114	8,003,466
Total	$11,338,551	$11,698,273
Disbursements		
Benefit payments	5,711,969	5,271,097
Refund of member contributions	0	0
Administrative & investment expenses	560,067	449,572
Total	$ 6,272,036	$ 5,720,669
Valuation Assets - December 31	$84,465,043	$79,398,528
Ratio of net investment income to mean assets	8.85%	10.40%

SECTION C

SUMMARY OF ACTUARIAL COST METHOD AND ASSUMPTIONS

BASIC FINANCIAL OBJECTIVE AND OPERATION OF THE RETIREMENT SYSTEM

Benefit Promises Made Which Must Be Paid For. A retirement system is an orderly means of handing out, keeping track of, and financing contingent pension promises to a group of employees. As each member of the Retirement System acquires a unit of service credit he is, in effect, handed an "IOU" which reads: "The Retirement System promises to pay you one unit of pension benefits, payments in cash commencing when you retire."

The principal related financial question is: When shall the money required to cover the "IOU" be contributed? This year, when the benefit of the member's service is received? Or, some future year when the "IOU" becomes a cash demand?

The constitution of the State of Michigan is directed to the question:

> "Financial benefits arising on account of service rendered in each fiscal year shall be funded during that year and such funding shall not be used for financing unfunded accrued liabilities."

Section 9(2) of Act 345 is also directed to the question:

> "Sec. 9(2). - - - For the purpose of creating and maintaining a fund for the payment of the pensions and other benefits payable hereunder the said city, village or municipality, subject to the provisions of this act, shall appropriate, at the end of such regular intervals as may be adopted, quarterly, semi-annually, or annually, an amount sufficient to maintain actuarially determined reserves covering pensions payable or which might be payable on account of service performed and to be performed by active members and pensions being paid retired members and beneficiaries - - -."

This Retirement System meets this constitutional requirement by having as its ***financial objective to establish and receive contributions, expressed as percents of active member payroll, which will achieve progress towards 100% funded status and will remain approximately level from year-to-year*** and will not have to be increased for future generations of taxpayers.

Translated into actuarial terminology, a level percent-of-payroll contribution objective means that the contribution rate must be at least:

> ***Normal Cost*** (the current value of benefits likely to be paid on account of members' service being rendered in the current year).
>
> ...plus...
>
> Interest on the Unfunded Actuarial Accrued Liability (the difference between the actuarial accrued liability and current system assets).

A by-product of the level percent-of-payroll contribution objective is the accumulation of invested assets for varying periods of time. ***Invested assets are a by-product of level percent-of-payroll contributions, not the objective.*** Investment income becomes a major contributor to the Retirement System, and the amount is directly related to the amount of contributions and investment performance.

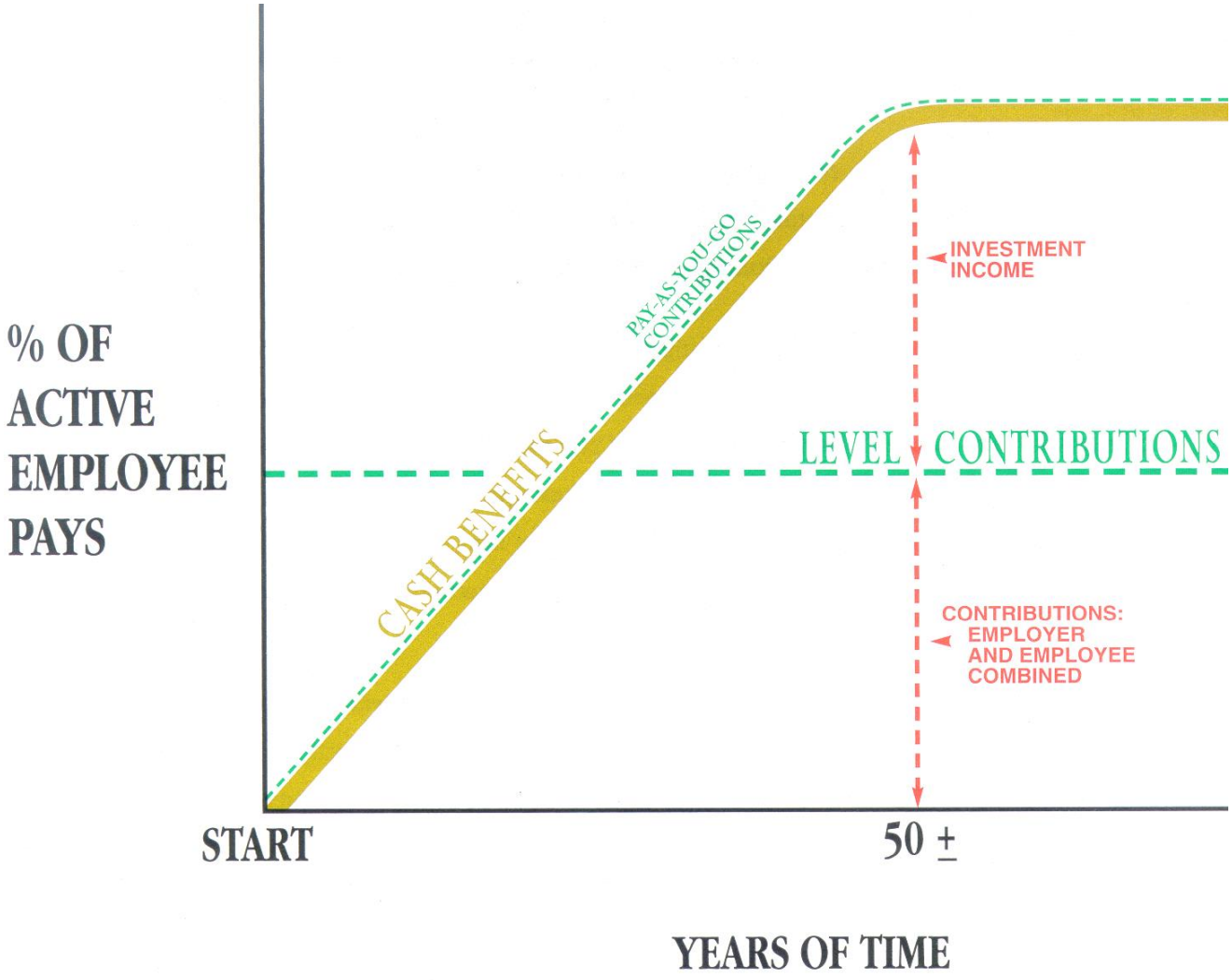
If contributions to the Retirement System are less than the preceding amount, the difference, plus investment earnings not realized thereon, will have to be contributed at some later time, or, benefits will have to be reduced, to satisfy the fundamental fiscal equation under which all pension programs must operate; that is:

$$B = C + I - E$$

The aggregate amount of **Benefit** payments to any group of members and their beneficiaries cannot exceed the sum of:

The aggregate amount of **Contributions** received on behalf of the group
... plus ...
Investment earnings on retirement system assets
... minus ...
The **Expenses** of operating the program.

Computed Contribution Rate Needed to Finance Benefits. From a given schedule of benefits and from the data furnished, the actuary calculates the contribution rate by means of an actuarial valuation - the technique of assigning monetary values to the risks assumed in operating a retirement system.



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

Actuarial Cost Method. Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the individual entry-age actuarial cost method having the following characteristics:

(i) the annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement; based on the benefits payable to each member.

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

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded Actuarial Accrued Liabilities (the portion of total liabilities not covered by present assets or expected future normal cost contributions) were amortized by level (principal or interest combined) dollar contributions over a closed period of 20 years. There is a 1-year lag between the valuation date and the contribution effective date. Unfunded liabilities were projected to the contribution effective date based on the valuation assumed rate of return and the adopted contributions and then amortized.

Asset Valuation Method. Last year's valuation assets are increased by contributions and reduced by refunds, benefit payments and expenses. An amount equal to the assumed investment return for the year is then added. Differences between actual return on a market value basis and an assumed return are phased-in over a four-year period.

Lump Sum Loading. Management member liabilities have been increased by 6% as an estimate of payroll activity not included in reported data.

Valuation Payroll. Valuation payroll was reduced for calculations of future liability to account for 27 pay periods during 2014.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

The actuary calculates the contribution requirements and benefit values of the System by applying actuarial assumptions to the benefit provisions and people information furnished, using the actuarial cost method described on the previous page. All actuarial assumptions used in this report are estimates of future experience.

The principal areas of financial risk which require assumptions about future experiences are:

- long-term rates of investment return
- patterns of pay increases to members
- rates of mortality among members, retirees and beneficiaries
- rates of withdrawal of active members
- rates of disability among members
- the age patterns of actual retirement

In a valuation, the actuary calculates the monetary effect of each assumption for as long as a present covered person survives - - - a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions, or the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

The rate of investment return was 7.0% a year, compounded annually. This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time.

Experience over the last 5 years has been as illustrated below:

	Year Ended December 31					5-Year
	2014	2013	2012	2011	2010	Average*
Rate of investment return	8.9%	10.4%	7.9%	6.9%	5.5%	7.9%
Increase in average pay	(1.6)%	(2.4)%	7.3%	(1.3)%	1.0%	0.5%
Real rate of return	10.5%	12.8%	0.6%	8.2%	4.5%	7.4%

* *Compound rate of increase.*

The nominal rate of return was computed using the approximate formula: i = I divided by 1/2 (A+B-I), where I is realized investment income net of expenses, A is the beginning of year asset value and B is the end of year asset value.

Sample Salary Adjustment Factors used to Project Current Salaries

Sample Ages	Percent Increase in Salary During Next Year		
	Economic	Promotion & Longevity	Total
20	4.0%	7.9%	11.9%
25	4.0%	5.8%	9.8%
30	4.0%	4.0%	8.0%
35	4.0%	2.9%	6.9%
40	4.0%	2.1%	6.1%
45	4.0%	1.5%	5.5%
50	4.0%	1.0%	5.0%
55	4.0%	0.5%	4.5%
60	4.0%	0.1%	4.1%
Ref		173	

The rate of price inflation is not explicitly assumed in the valuation. However, a price inflation assumption of 3.0% would be consistent with the assumptions used in the valuation.

Probabilities of retirement for members eligible to retire were:

Percents of Active Members Retiring Within Next Year	
Years of Service	**Police-Fire**
25	35%
26	30%
27	30%
28	30%
29	30%
30	30%
31	30%
32	30%
33	30%
34	40%
35 & over	100%
Ref	358

Percents of Active Members Retiring Within Next Year	
Age	**Police-Fire**
60	40%
61	40%
62	40%
63	40%
64	40%
65	40%
66	35%
67	25%
68	25%
69	25%
70	25%
71	25%
72	25%
73	25%
74	25%
75 & over	100%
Ref	237

All members are eligible for retirement after attaining age 60 or with 25 years of service regardless of age. Police Officers and Police Supervisors hired after January 1, 2004 are eligible after attaining age 55 with 25 years of service or age 60 with 10 years of service. The retirement probabilities above apply after eligibility is reached.

DROP Plan Assumptions: Retirement probabilities were reduced by 50% in the first 5 years and increased by 150% in the second 5 years of eligibility, and for Police Supervisors and Fire members set to 100% in the 33rd year of service.

Probabilities of becoming disabled were:

Sample Ages	Probability of Becoming Disabled Within Next Year					
	Men			**Women**		
20	0.12%			0.12%		
25	0.12%			0.12%		
30	0.15%			0.15%		
35	0.27%			0.27%		
40	0.41%			0.41%		
45	0.78%			0.78%		
50	1.24%			1.24%		
55	1.70%			1.70%		
60	3.05%			3.05%		
Ref	121	x	1.0	121	x	1.0

Fifty percent of future disability retirements were assumed to be non-duty related and 50% were assumed to be duty related.

Withdrawal Rates: Separations from active employment before retirement, death or disability:

Sample Ages	% of Active Members Separating Within Next Year
20	4.0%
25	3.8%
30	3.3%
35	2.0%
40	0.4%
45	0.0%
50	0.0%
55	0.0%
60	0.0%
Ref	51

The mortality table used to measure pre and post-retirement mortality was the RP-2000 Combined Healthy Mortality Table projected 17 years. This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. 95% percent of pre-retirement deaths were assumed to be non-duty related and 5% were assumed to be duty related. Disability post-retirement mortality was assumed to be the same as standard post-retirement mortality set forward an additional 10 years. The membership size in this group is not sufficiently large to determine if there is a margin for mortality improvements. Based on our extensive experience with a broad cross section of public sector plans, it is our opinion this assumption provides a margin for future mortality improvement.

Sample Attained Ages	Single Life Retirement Values					
	Present Value of $1 Monthly for Life		Percent Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women	Men	Women
45	$157.89	$160.75	0.1433%	0.1068%	37.37	40.05
50	151.53	155.21	0.2032%	0.1593%	32.66	35.29
55	143.31	147.98	0.3444%	0.2495%	28.05	30.61
60	133.15	138.76	0.5988%	0.4261%	23.61	26.04
65	120.99	127.52	1.0374%	0.7905%	19.42	21.70
70	106.84	114.52	1.7175%	1.3636%	15.53	17.68
75	90.95	99.97	2.9262%	2.2891%	12.00	14.02
80	74.13	84.14	4.9784%	3.7366%	8.93	10.76
Ref	717 x 1.00	718 x 1.00				

Value of $1,000/Month Retirement Benefit to an Individual Who Retires at Age 55 in an Environment of 4.0% Inflation

	COLA Rate	
Age	2.0%	0%
55	$1,000	$1,000
56	981	962
57	962	925
58	943	889
59	925	855
60	907	822
65	824	676
70	747	555
75	678	456
80	615	375
85	558	308

The life expectancy of a 55-year-old male retiree is 25 years. The life expectancy for a 55-year-old female retiree is 30 years. Half of the people will outlive their life expectancy. The effects of even moderate amounts of inflation can be significant for those who live to an advanced age.

Marriage Assumption:	100% of members are assumed to be married for purposes of death-in-service benefits. 90% of the active members are assumed to be married at retirement and death for purposes of the automatic survivor benefit. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and mortality decrements do not operate during the first 5 years of service or during retirement. Mortality does operate during retirement.
Normal Form of Benefit:	The assumed normal form of benefit at retirement is the 60% joint and survivor form for married members and straight-life for single members.
Option Factors:	Option factors are based upon 7.0% interest and the 1971 Group Annuity Mortality Table for males and the 1971 Group Annuity Mortality Table setback 5 years for females. The interest rate used for annuity withdrawal is based on the Merrill Lynch Corporate and Government Master Bond Average for the month of May preceding retirement.
Incidence of Contributions:	Contributions are assumed to be received at the end of the calendar year based upon the computed percent of payroll shown in this report, and the payroll projected to the time contributions are made.
Benefit Service:	Service nearest whole year is used to determine the amount of benefit payable.

GLOSSARY

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as "accrued liability" or "past service liability."

Accrued Service. The service credited under the plan, which was rendered before the date of the actuarial valuation.

Actuarial Assumptions. Estimates of future plan 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.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Plan Termination Liability. The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for the future service and salary. The termination liability will generally be less than the liabilities computed on a "going-concern" basis and is not normally determined in a routine actuarial valuation.

Reserve Account. Account used to indicate that funds have been set-aside for a specific purpose and is not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

Funding Value of Assets (also referred to as Valuation Assets or Actuarial Value of Assets) The value of current plan assets recognized for valuation purposes.

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September 8, 2015 - Revised

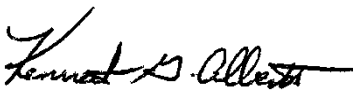
The Retirement Board
Waterford Township
Policemen and Firemen Retirement System
5200 Civic Center Drive
Waterford, Michigan 48329

Attention: Ms. Bonnie Verbos

Dear Ms. Verbos:

Please find enclosed 15 copies of the Annual Actuarial Valuation as of December 31, 2014 for the Waterford Township Policemen and Firemen Retirement System.

Sincerely,



Kenneth G. Alberts

KGA:mrb
Enclosures

cc: Mr. Keith Szymanski, CPA, Plante & Moran, LLP (+1 Report Copy)
Mr. Brian Green, Morgan, Stanley, Smith & Barney (+1 Report Copy)
Mr. Thomas Michaud, VanOverbeke, Michaud & Timmony, P.C. (+1 Report Copy)