Gabriel Roeder Smith & Company
Consultants & Actuaries

OAKLAND COUNTY RETIREES' HEALTH CARE TRUST

TWENTY-NINTH ANNUAL ACTUARIAL VALUATION REPORT

SEPTEMBER 30, 2013

CONTENTS

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January 3, 2014

The Oakland County VEBA Board
Waterford, Michigan

Dear Board Members:

Submitted in this report are the results of the twenty-ninth annual actuarial valuation of the liabilities, funded position and contribution requirements associated with the Oakland County Retiree Health Trust Plan with benefits provided through a VEBA. The purpose of the valuation was to measure the VEBA's funding progress, determine the employer contribution for the 2014-2015 fiscal year and provide information in connection with applicable Governmental Accounting Standards Board Statements. This report should not be relied upon for any other purpose. This report may be provided to parties other than the VEBA Board only in its entirety and only with the permission of the VEBA Board.

The date of the valuation was September 30, 2013. An Executive Summary is included as Section A. Valuation results are contained in Section B.

The valuation was based upon information, furnished by your secretary, concerning VEBA benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided.

Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements.

To the best of our knowledge, this report is complete and accurate and the valuation was conducted in accordance with standards of practice prescribed by the Actuarial Standards Board in compliance with the applicable state statutes. Louise Gates and Mark Buis are independent of the plan sponsor and are Members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,

Louise Gates

Louise M. Gates, ASA, MAAA

Mark Buis

Mark Buis, FSA, EA, MAAA

LMG/MB:mrb

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SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1. Required County Contributions - Fiscal Year Beginning October 1, 2014

The computed employer contributions are shown in the chart below.

Division	Computed Employer Contributions
General	$ 0
Command Officers	818,930
Road Deputies	0
Corrections Deputies	0
Total	$ 818,930

The retiree health plan is closed to new County employees. As a result, contributions for all divisions are expressed in dollars in this report instead of percents-of-payroll. This is due to the use of the level dollar amortization method to finance the unfunded accrued liability.

2. Contribution Rate Comparison

The total required contribution rate in the 9/30/2012 valuation was $35,236,330 and is $818,930 as of September 30, 2013.

3. Reasons for Change

There were no changes in benefits reported to the actuary in connection with this valuation of the VEBA. A change was made to the medical inflation assumption used in the valuation of the Plan to better reflect future experience of the VEBA. This assumption is shown on page F-6 of this report and increased our assessment of VEBA liabilities. As directed by the Board, the funding value of assets (FVA) was set equal to the market value of assets ('market to market') as of September 30, 2013. In addition, next year's report will reflect a change in the smoothing period (from 3 to 5 years) used to develop the FVA. Based on common practice among overfunded plans and the provisions of GASB statement number 45, the UAL was amortized over a 10-year period. Finally, this valuation of the VEBA reflects a large asset transfer from the Interim Retiree Medical Benefits Trust (IRMBT).

4. Plan Experience

During the year ended September 30, 2013, the experience of the VEBA was overall, favorable. The claims costs increased by less than projected by actuarial assumptions. In addition, Medicare Part B premiums increased by less than assumed. The investment experience of the VEBA, was also favorable. The investment return during the plan year was higher than long term expectations. The favorable experience was partially offset by a decrease in monthly premiums paid by current and prospective future retirees. Additional information regarding Plan investments is shown on page E-10.

5. Funding Position

Funding for retiree health benefits began more than 25 years ago. This year, valuation assets represent over 117% of accrued liabilities, while last year the funded percent was 73%. The increase is due to the asset transfer from the IRMBT and the favorable Plan experience.

6. Financial Reporting

As noted above, a large asset transfer was made during the 2012-2013 plan year from the IRMBT into the VEBA trust. If the transfer is treated as an additional contribution to the VEBA, it may be necessary to develop and track a Net OPEB Obligation (a negative NOO) for financial reporting purposes.

7. Actuarial Standards

The Actuarial Standards of Practice (ASOP) with regard to the mortality assumption have recently been revised. ASOP No. 35 Disclosure Section 4.1.1 now states *"The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement."* Currently, there appears to be no margin for future mortality improvement in the mortality assumption used for the annual valuation of the Plan.

We recommend a limited scope assumption study to review the appropriate margin (if any) to be added to the current mortality assumption and the contribution method used in future valuations of the Plan.

SECTION B

VALUATION RESULTS

FINANCIAL OBJECTIVE

The financial objective of the Retirees' Health Care Plan is to establish and receive contributions, which will permit the accumulation of assets to pay for the retirement benefit promises.

Your annual retiree health benefit valuations determine how well the objective is being met.

CONTRIBUTIONS

The retiree health benefits are supported by contributions from the County and by the investment income earned on accumulated fund assets. The County provides an actuarially determined contribution needed to meet the financial objective.

The County's contributions cover both (i) normal cost, and (ii) the financing of the unfunded accrued liability over a period of future years. The normal cost is the portion of health benefit costs allocated to the current year by the valuation method described in Section F. The unfunded accrued liability is the portion of costs not covered by present fund assets and future normal costs. The contribution requirements for retiree health benefits are presented on page B-2.

CONTRIBUTIONS TO PROVIDE BENEFITS
FOR THE
FISCAL YEAR BEGINNING OCTOBER 1, 2014

Contributions for	General Members	Command Officers	Road Deputies	Correction Deputies
Normal cost of benefits	$ 7,809,856	$ 683,106	$2,678,444	$1,887,958
Unfunded accrued liability	(14,801,327)	135,824	(4,347,250)	(3,361,975)
Employer contribution $	0	818,930	0	0

The unfunded accrued liabilities for the employment divisions shown above were financed as a level dollar amount over a period of 10 years. The following page shows the unfunded accrued liabilities as of September 30, 2013 that are being amortized by these contributions. The asset transfer from the IRMBT was allocated in proportion to the average asset value of each group during the plan year. This allocation method maintains the funded status of each group.

The contribution dollars in this report anticipate contribution payments in the middle of the fiscal year. If the employer contribution pattern is significantly different, an adjustment to the costs may be appropriate. For example, payment of the entire contribution at the beginning of the year is available for investment throughout the year and, therefore, ought to be somewhat smaller than 12 monthly payments. Similarly, payment of the entire contribution at the end of the year will not generate any investment income that year and so ought to be greater than 12 monthly payments.

Determination of the Plan's Unfunded Accrued Liability as of September 30, 2013

	General Members	Command Officers	Road Deputies	Corrections Deputies	Total
A. Accrued Liability					
1. For retirees and beneficiaries	$359,126,599	$23,958,306	$ 33,752,551	$ 27,805,840	$444,643,296
2. For vested terminated members	52,982,925	1,236,084	2,291,458	2,678,575	59,189,042
3. For present active members					
a. Value of expected future benefit payments	305,636,064	29,408,965	82,452,950	60,472,669	477,970,648
b. Value of future normal costs	66,363,202	4,128,424	24,175,044	17,651,170	112,317,840
c. Active member liability: (a) - (b)	239,272,862	25,280,541	58,277,906	42,821,499	365,652,808
4. Total	651,382,386	50,474,931	94,321,915	73,305,914	869,485,146
B. Valuation Assets	753,002,042	49,542,424	124,168,298	96,387,810	1,023,100,574
C. Unfunded Accrued Liability: (A.4) – (B)	(101,619,656)	932,507	(29,846,383)	(23,081,896)	(153,615,428)

Retiree Premium Rate Development

Background

The initial per capita health care premiums are an important part of a retiree health valuation. We understand that currently, eligible County retirees (and eligible spouses) receive benefits from a number of health care plans, including the self-insured Blue Cross Blue Shield (BCBS) plans for Non-Medicare retirees, a self-insured medical plan through Aetna for retirees on Medicare, a self-insured drug plan through Navitus and the fully-insured Health Alliance Plan (HAP). Dental benefits provided by Delta Dental are also self-insured.

Rate Development

For the self-insured medical plans, initial per capita costs were developed separately for pre-65 and post-65 retirees using medical claims experience from October 2010 to September 2013 from BCBS and Aetna in conjunction with exposure data for the retired members of the health care program. These medical claims were projected on an incurred claim basis, adjusted for plan design changes, large claims and loaded for administrative expenses.

For the self-insured drug plans, initial per capita costs were developed using drug claims experience from October 2010 to September 2013 from Navitus in conjunction with exposure data for the retired members of the health care program. These drug claims were projected on an incurred claim basis, adjusted for plan design changes and administrative expenses.

The initial medical and drug premium rates used in the valuation are a weighted average cost of the three-year experience period to smooth out any large year to year fluctuations.

The initial medical premium rates for current retirees used for this valuation show an 0.8% increase for pre-65 participants and 4.1% increase for post-65 participants from the initial premium rates used in the 10/1/2012 VEBA valuation. The initial drug premium rates for current retirees used for this valuation show a 5.0% decrease from the initial premium rates used in the 2012 VEBA valuation.

RETIREE PREMIUM RATE DEVELOPMENT

Since participation in the fully-insured HAP plan is minimal in relation to the other coverage (less than 1% participation), the HAP plan was not used in the development of the rates.

For employees hired after 1/1/1997, BCBS PPO plan 903 is the only medical plan available to non-Medicare retirees. The prescription drug plan is the same as the plan offered to current retirees. We have developed separate premium rates for these future retirees in order to reflect the non-Medicare medical benefit differences.

For the current valuation, we have not made any adjustments in rates due to the new ASR, Community Blue, and NGS plans. We understand the changes in plans result in no material change in benefits, and as such, we assume there is no cost savings from switching carriers for this September 30, 2013 valuation.

Age graded and sex distinct premiums are utilized by this valuation. The initial costs developed are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. This process more accurately reflects health care costs in the retired population over the projection period.

Based on the guidance provided by GASB on issues related to Medicare Part D payments to State and Local Governments effective as of June 30, 2006, an employer should apply the measurement requirements of GASB Statement No. 45 to determine the actuarial accrued liabilities, the annual required contribution of the employer, and the annual OPEB cost without reduction for Retiree Drug Subsidy (RDS) payments. Therefore the impact of the RDS that is part of the Medicare Prescription Drug Improvement and Modernization Act of 2003 is not reflected in the liabilities shown in this report.

RETIREE PREMIUM RATE DEVELOPMENT

The tables below show the resulting combined medical and prescription drug one-person monthly premiums at select ages. The premium (or per capita costs) rates shown below were used in this valuation of the plan and reflect the use of age grading.

Current Retirees

Premiums For Retirees Not Yet Eligible For Medicare		
Age	**Males**	**Females**
50	$560.04	$634.56
55	731.96	752.39
60	919.55	883.89

Premiums For Retirees Receiving Medicare		
Age	**Males**	**Females**
70	$508.77	$457.48
75	564.82	501.26
80	605.60	533.82

Future Retirees

Premiums For Retirees Not Yet Eligible For Medicare		
Age	**Males**	**Females**
50	$527.00	$597.12
55	688.77	708.00
60	865.30	831.74

Premiums For Retirees Receiving Medicare		
Age	**Males**	**Females**
70	$508.77	$457.48
75	564.82	501.26
80	605.60	533.82

The dental and vision premium rates used in this valuation of the Plan were not "age graded" since these claims do not vary significantly by age. The monthly one and two-person dental premiums used in this valuation are $40.22 and $73.91, respectively. The monthly one and two-person vision premiums used in this valuation are $3.37 and $8.09.

James E. Pranschke is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.

James E. Pranschke

James E. Pranschke, FSA, MAAA
Health Actuary

DEVELOPMENT OF 2012/2013 EXPERIENCE GAIN (LOSS)

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.

		2013
(1)	UAAL* at start of year	$231,069,364
(2)	Normal cost for year	13,554,383
(3)	Actual contributions	39,384,039
(4)	Net interest accrual on (1), (2) and (3)	16,373,264
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	221,612,972
(6)	Change from benefit changes	0
(7)	Change from revised asset method	(61,259,695)
(8)	Impact of Interim Fund Transfer	(236,000,000)
(9)	Expected UAAL after changes: (5) + (6) + (7) + (8)	(75,646,723)
(10)	Actual UAAL at end of year	(153,615,428)
(11)	Gain (Loss): (9) - (10)	77,968,705
(12)	Gain (Loss) as percent of actuarial accrued liabilities at start of year	9.0%
(13)	Total Gain (Loss)	77,968,705

* *Unfunded actuarial accrued liabilities.*

COMPARATIVE STATEMENT

Valuation Date	Active Members (Future Recipients)				Present Recipients*	
	No.	Valuation Payroll Total	Average	% Incr.	No.	Annual Premiums
9/30/1999 #	3,554	$153,188,662	$43,103	3.1%	1,323	$ 7,794
9/30/2000 #	3,611	166,503,751	46,110	7.0	1,370	9,795
9/30/2001 #	3,718	172,693,445	46,448	0.7	1,419	10,516
9/30/2002	3,787	183,705,032	48,509	4.4	1,465	12,453
9/30/2003	3,646	181,772,063	49,855	2.8	1,687	17,212
9/30/2004	3,728	192,689,384	51,687	3.7	1,689	18,421
9/30/2005 #	3,756	201,187,290	53,564	3.6	1,727	18,305
9/30/2006	3,654	201,019,205	55,013	2.7	1,771	21,355
9/30/2007	3,501	200,409,433	57,243	4.1	1,988	24,039
9/30/2008	3,234	186,274,882	57,599	0.6	2,149	26,065
9/30/2009	3,101	180,539,069	58,220	1.1	2,026	25,391
9/30/2010 #	2,961	175,316,170	59,208	1.7	2,067	27,194
9/30/2011 #	2,828	173,903,452	61,493	3.9	2,155	28,950
9/30/2012	2,664	162,819,440	61,118	(0.6)	2,198	29,276
9/30/2013 #	2,539	154,128,944	60,705	(0.7)	2,265	30,817

\# *Plan provisions and/or assumptions/methods amended.*

* *Number of medical and prescription drug benefit contracts with annual "premiums" dollar amounts shown in thousands.*

SECTION C

CASH FLOW PROJECTIONS

CASH FLOW PROJECTIONS - EXPLANATION

Background

Until a retirement program reaches a mature state, the number of members receiving benefits will continue to increase, with commensurate increases in the amount of benefit disbursements. When the retirement benefits being paid are health benefits, health costs can be expected to increase as the result of health care cost increases, changes in utilization and Medicare cost shifting. When these reasons for increased disbursements apply, as they do for Oakland County Retirees' Health Care Trust, it is reasonable to expect that the amount of the fund's annual disbursements will increase for many years to come.

We have projected the fund’s disbursements over the next 10 years. The projections are based upon the valuation assumptions shown in Section F. The following schedule projects the anticipated benefit payments of the Trust. These benefit payments include vision, dental, medical and prescription drug benefits as well as Medicare Part B premium payments.

10-Year Closed Group Projection of Benefit Disbursements
Plan Total (All Divisions Combined)
(Dollar Amounts Shown in Millions)

Year Ending Sept. 30	Retiree Health Payments on Behalf of Present			
	Retirees	**Employees**	**Inactives**	**Total**
2014	$30.5	$ 1.2	$0.3	$32.0
2015	31.9	3.6	0.7	36.2
2016	33.2	6.0	1.3	40.5
2017	34.2	8.5	1.8	44.5
2018	35.1	11.1	2.3	48.5
2019	35.9	13.7	2.7	52.3
2020	36.5	16.4	3.1	56.0
2021	37.0	19.3	3.6	59.9
2022	37.4	22.2	4.1	63.7
2023	37.6	25.4	4.5	67.5

SECTION D

ACCOUNTING DISCLOSURES

Required Supplementary Information
Schedule of Health Funding Progress
(amounts in millions)

Required Supplementary Information
Schedule of Employer Health Contributions

Valuation Date September 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2009	$452.5	$818.9	$366.4	55.3%	$180.5	203.0%
2010	516.7	794.1	277.4	65.1	175.3	158.2
2011	563.5	814.6	251.1	69.2	173.9	144.4
2012	636.6	867.6	231.0	73.4	162.8	141.9
2013	1,023.1	869.5	(153.6)	117.7	154.1	0.0

Valuation Year Ended September 30	Fiscal Year Ended September 30	Annual Required Contribution (ARC)	Actual Contributions	Percentage Contributed
2008	2010	$57,631,411	$57,631,411	100.0%
2009	2011	47,592,273	47,592,273	100.0
2010	2012	37,268,761	37,268,761	100.0
2011	2013	36,969,985	36,970,025	100.0
2012	2014	35,236,330		
2013	2015	818,930		

Annual required contributions are based on contribution rates and projected valuation payroll. Actual contributions were based on the financial statements provided by the County. This information is presented in draft form for review by the County's auditor. Please let us know if there are any items that the auditor changes so that we can maintain consistency with the County's financial statements.

REQUIRED SUPPLEMENTARY INFORMATION

The following assumptions and methods were used in the September 30, 2013 actuarial valuation of the Retiree Health Care Plan:

Valuation Date	September 30, 2013
Actuarial Cost Method	Entry-Age
Amortization Method	Level dollar, closed
Remaining Amortization Period	10 years
Asset Valuation Method	Market value *
Premium Rate Development Method	Please refer to pages B-4 – B-6
Actuarial Assumptions	
Annual rate of return (discount rate)	7.50% per year
Rates of inflation for medical and other benefits	Please refer to page F-6

* *Effective with the 9/30/2014 valuation, the asset valuation method will be a 5 year smoothed market value with corridors. This valuation reflects a 'mark to market' on assets.*

SECTION E

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

BRIEF SUMMARY OF HEALTH BENEFIT PROVISIONS (SEPTEMBER 30, 2013)

Eligibility	Amount
EMPLOYED UNTIL RETIREMENT	
Hired before 9/21/85 and having 8 or more years of service, or hired between 9/20/85 and 1/1/95 and had 15 or more years of service - retired employee or survivor under the Retirement System or the defined contribution plan.	Until age 65 - the same health benefits as are in effect for County employees. Beginning at age 65 - Medicare supplementary coverage. If hired before 1/1/89 there is reimbursement for Medicare Part B premiums. Family coverage provided if needed.
Retired employee or survivor of deceased employee, hired between 9/20/85 and 1/1/95 and had 8 to 14 years of service.	Same as above, for retired member only.

For members hired during 1995 and later, refer to "Accumulation of Health Care Points" below.

EMPLOYMENT ENDED BEFORE RETIREMENT

Eligibility	Amount
Hired between 9/20/85 and 1/1/95 and 15 to 19 years of service.	Same as above, for retired employee only.
Hired before 9/21/85 and 8 or more years of service or hired between 9/20/85 and 1/1/95 with 20 or more years of service.	Same as above, with family coverage if needed.

ACCUMULATION OF HEALTH CARE POINTS

For General members hired on and after 1/1/95 (5/27/95 for Command Officers and Sheriff's Deputies), the portion of the health care costs paid by the Trust will be based on years of service at retirement. If a member has less than 15 years of service, there is no County paid retiree health coverage. If a member has 15 years of service at retirement, 60% of the health care premium will be paid by the Health Care Trust. The percent increases 4% per year of service over 15 with a 100% maximum coverage after 25 years of service. Note, new employees are required to join the County's retiree health savings plan effective 1/1/06 for General Non-Union employees, 3/5/09 for Sheriff Command Officers, 1/1/10 for Sheriff Corrections Deputies, and 2/9/12 for Sheriff Road Patrol Deputies. Closure effective dates vary for General Union members.

DEATH AFTER RETIREMENT

Benefits may be payable to the spouse at time of retirement under the conditions described above.

DENTAL AND VISION COVERAGE

Retirees and eligible family members based upon their eligibility for health benefits.

General Division members hired after 2006, Command Officers hired after 3/5/2009, Corrections Deputies hired after 2009 and Road Patrol Deputies hired after 2/9/2012 must join the defined contribution health plan.

RETIREES AND BENEFICIARY LIABILITIES AS OF SEPTEMBER 30, 2013 TABULATED BY ATTAINED AGE

Attained Age*	Number of Contracts	Liability^
Under 25	4	$ 817
25 - 29	0	0
30 - 34	0	0
35 - 39	0	0
40 - 44	4	1,573
45 - 49	15	6,416
50 - 54	35	12,943
55 - 59	202	66,754
60 - 64	432	114,690
65 - 69	496	105,762
70 - 74	352	59,766
75 - 79	321	41,934
80 - 84	211	22,156
85 - 89	137	9,398
90 & Up	56	2,434
Total	**2,265**	**$444,643**

^ *Amounts shown rounded to the nearest thousand.*
* *Age of contract holder.*

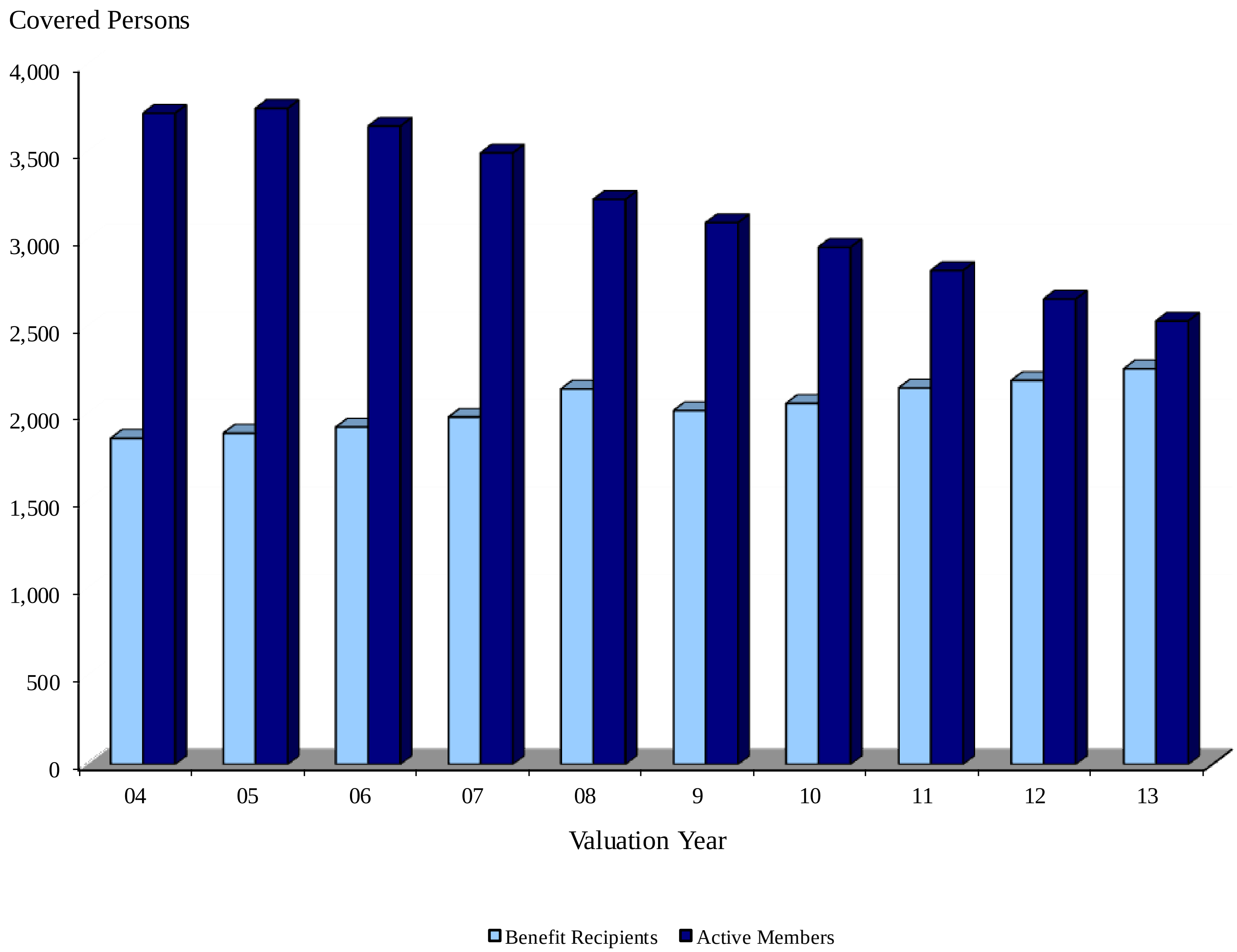
INACTIVE MEMBERS AS OF SEPTEMBER 30, 2013
TABULATED BY ATTAINED AGE

Inactive members reported in connection with the September 30, 2013 valuation totaled 240. An inactive member is a person who has left County employment with entitlement to retiree health coverage at a future date. The schedule shows the inactive members by age.

Attained Age	Number*
25 - 29	0
30 - 34	0
35 - 39	4
40 - 44	25
45 - 49	48
50 - 54	73
55 - 59	87
60 - 64	3
65 - 69	0
70 - 74	0
Total	**240**

** Includes 33 individuals reported in connection with this valuation without entitlement to retiree health benefits.*

ACTIVE MEMBERS & BENEFIT RECIPIENTS



ACTIVE MEMBERS REPORTED FOR VALUATIONS
COMPARATIVE SCHEDULE

	Active Members						Average		
Date	Gen.	Road Deputies	Corrections Deputies	Command Officers	Total	Valuation Payroll	Age	Service	Pay
12/31/1989	2,842	543	@	@	3,385	$ 96,992,890	40.6	9.6	$28,654
12/31/1990	2,860	575	@	@	3,435	103,261,438	40.6	9.9	30,062
12/31/1991	2,922	582	@	@	3,504	111,486,994	41.0	10.1	31,817
12/31/1992	2,965	590	@	@	3,555	119,536,060	41.5	10.8	33,625
12/31/1993	2,670	577	@	@	3,247	114,443,309	41.1	10.4	35,246
12/31/1994	2,701	567	@	@	3,268	118,366,427	41.7	10.9	36,220
12/31/1995	2,935	594	@	@	3,529	133,105,986	41.6	10.6	37,718
12/31/1996	2,753	584	@	@	3,337	133,923,317	42.7	11.8	40,133
9/30/1997	3,024	556	@	85	3,665	147,575,221	42.1	11.0	40,266
9/30/1998	3,137	528	@	86	3,751	156,867,328	42.5	11.2	41,820
9/30/1999	2,935	629	@	89	3,554	153,188,662	42.4	11.6	43,103
9/30/2000	2,836	685	@	90	3,611	166,503,751	42.5	11.7	46,110
9/30/2001	2,935	691	@	92	3,718	172,693,445	42.6	11.7	46,448
9/30/2002	2,981	705	@	101	3,787	183,705,032	42.9	12.0	48,509
9/30/2003	2,837	715	@	94	3,646	181,772,063	42.7	11.6	49,855
9/30/2004	2,903	724	@	101	3,728	192,689,384	43.1	11.9	51,687
9/30/2005	2,918	736	@	102	3,756	201,187,290	43.4	12.2	53,564
9/30/2006	2,819	732	@	103	3,654	201,019,205	44.2	13.0	55,013
9/30/2007	2,654	743	@	104	3,501	200,409,433	44.8	13.8	57,243
9/30/2008	2,401	731	@	102	3,234	186,274,882	45.0	14.1	57,599
9/30/2009	2,292	708	@	101	3,101	180,539,069	45.9	15.1	58,220
9/30/2010	2,185	681	@	95	2,961	175,316,170	46.7	16.0	59,208
9/30/2011	2,027	375	329	97	2,828	173,903,452	47.1	16.2	61,493
9/30/2012	1,898	376	292	98	2,664	162,819,440	47.9	17.0	61,118
9/30/2013	1,806	372	263	98	2,539	154,128,944	48.4	17.6	60,705

@ *Included in the Road Deputies column.*

GENERAL MEMBERS AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

	Years of Service on the Valuation Date							Totals	
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 Plus**	**No.**	**Valuation Payroll**
Under 25									
25-29		8						8	$ 291,882
30-34	3	55	42	1				101	4,357,358
35-39		49	107	28				184	9,575,361
40-44	2	42	101	103	44	3		295	16,149,190
45-49	1	33	74	66	61	28	2	265	15,010,553
50-54	1	32	61	78	72	68	41	353	20,796,677
55-59		19	47	67	45	44	57	279	16,253,774
60		3	13	9	9	8	20	62	3,717,878
61	1	3	16	9	6	2	5	42	2,543,511
62		2	9	6	6	4	15	42	2,527,319
63	1	4	10	8	5	5	3	36	2,178,948
64		1	8	4	1	5	5	24	1,382,711
65		3	5	6	3	2	5	24	1,522,883
66		1	8	7	4	4	3	27	1,790,431
67			3	3	3	2	3	14	797,573
68			7	3	3	2	3	18	1,151,816
69		1	1	2			3	7	485,939
70		1		2	2	1	1	7	290,266
71			2	5	1			8	368,274
72			1					1	139,437
73			1					1	31,982
74			1		1	1	1	4	275,551
75 +					1		3	4	400,348
Totals	**9**	**257**	**517**	**407**	**267**	**179**	**170**	**1,806**	**$102,039,662**

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

Group Averages:

Age: 49.8 years
Service: 18.0 years
Annual Pay: $56,500

ROAD DEPUTIES AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

	Years of Service on the Valuation Date							Totals	
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 Plus**	**No.**	**Valuation Payroll**
20-24									
25-29	5	2						7	$ 379,777
30-34	1	20	7					28	1,899,452
35-39	17	7	32	12				68	4,664,961
40-44	27	6	22	32	13	1		101	7,063,015
45-49	7	3	18	21	14	11		74	5,412,106
50-54	7	3	5	9	11	16		51	3,618,668
55-59	2		2	3		11	13	31	2,355,631
60					1		1	2	143,989
61						2	1	3	266,200
62	1					1	2	4	292,472
63				1	1		1	3	216,169
Totals	**67**	**41**	**86**	**78**	**40**	**42**	**18**	**372**	**$26,312,440**

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

Group Averages:

Age: 44.3 years
Service: 15.0 years
Annual Pay: $70,732

CORRECTIONS DEPUTIES AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

	Years of Service on the Valuation Date							Totals	
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30 Plus**	**No.**	**Valuation Payroll**
20-24									
25-29		4						4	$ 230,957
30-34	1	39	7					47	3,063,411
35-39		12	34	5				51	3,377,713
40-44		7	22	15	5	2		51	3,241,278
45-49		3	13	5	6	10		37	2,599,738
50-54	1		4	8	9	14	1	37	2,713,692
55-59			1	1	7	7	4	20	1,390,288
60			1		1	1	1	4	273,397
61				1	2	2		5	454,134
62							1	1	82,464
63					1	2		3	169,704
66				1				1	112,449
67							1	1	76,270
72			1					1	34,741
Totals	**2**	**65**	**83**	**36**	**31**	**38**	**8**	**263**	**$17,820,236**

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

Group Averages:

Age: 43.6 years
Service: 15.8 years
Annual Pay: $67,758

COMMAND OFFICERS AS OF SEPTEMBER 30, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Age	Years of Service on the Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
25-29									
30-34		2						2	$ 188,547
35-39		1	3	2				6	505,369
40-44			3	11	2			16	1,286,749
45-49			1	8	20	6		35	2,752,018
50-54			1		7	9		17	1,321,544
55-59					3	3	7	13	1,130,872
60							3	3	276,233
61					1		1	2	174,551
62							1	1	88,059
63					1		1	2	164,383
65						1		1	68,281
Totals		**3**	**8**	**21**	**34**	**19**	**13**	**98**	**$ 7,956,606**

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

Group Averages:

Age: 48.7 years
Service: 22.9 years
Annual Pay: $81,190

SUMMARY OF REPORTED FINANCIAL INFORMATION
YEAR ENDED SEPTEMBER 30, 2013
(MARKET VALUE)

Revenues and Disbursements

Revenues:		
a. Employer Contributions	$ 36,970,025	
b. Asset Transfer	236,000,000	
c. Investment Income	106,768,913	
d. Payments by Retirees	90,193	
e. Other	2,323,821	
f. Total		$382,152,952
Disbursements:		
a. Benefits Paid	28,563,667	
b. Expenses	2,411,357	
c. Total		30,975,024
Reserve Increase:		
Total Revenues Minus Total Disbursements		$351,177,928

Summary of Investments

Assets:	
a. Cash & Equivalents*	$ 21,331,387
b. Other	404,941,730
c. Common Stock	428,254,616
d. Fixed Income	168,572,841
Total	$ 1,023,100,574

* *Adjusted for accruals, and payables.*

SECTION F

VALUATION METHODS AND ASSUMPTIONS

VALUATION METHODS

The normal cost was computed as follows:

The series of contributions necessary to accumulate the present value at time of retirement of an employee's retired member health benefits was computed so that each contribution in the series, from entry age to retirement, was a constant percentage of the employee's year-by-year projected covered compensation. This is referred to as the individual entry age actuarial cost method.

The accrued liability was computed as follows:

Retirees and Beneficiaries: The discounted value of health benefits likely to be paid to retirees and beneficiaries was computed using the investment return, health cost increase and mortality assumptions.

Active and Inactive Employees: The discounted value of health benefits likely to be paid for active and inactive employees after their retirement was computed using the assumptions outlined on the following pages and was reduced by the value of normal costs to be paid for service after the valuation date.

Valuation Assets: Valuation assets are equal to the reported market value of assets at the valuation date with investment gains and losses spread over a period of 5 years (with 20% recognition in each year). Valuation assets were reset to the market value of assets as of September 30, 2013.

Financing of Unfunded Actuarial Accrued Liabilities: The unfunded accrued liabilities (UAL) for all groups were amortized by the level (principal & interest combined) dollar payment method.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

Investment Return (net of expenses): 7.5% per year compounded annually. This rate consists of a real rate of return of 3.00% a year plus a long-term rate of inflation of 4.50% a year. This assumption is used to equate the value of payments due at different points in time.

Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below. The increases in health rates (excluding dental and vision) are also shown for comparative purposes.

	Year Ended September 30				
	2013	**2012**	**2011**	**2010**	**2009**
Rate of Investment Return	21.8%	10.5%	4.4%	6.6%	0.3%

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

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems.

Pay Projections: These assumptions are used to project current pays to those upon which future contributions will be based. The assumptions were first used for the September 30, 2010 valuation.

	Annual Rate of Pay Increase for Sample Ages						
	General Members				Sheriff's Department		
Sample Ages	**Base* (Economic)**	**Merit & Longevity**	**Total**	**Years of Service**	**Base* (Economic)**	**Merit & Longevity**	**Total**
20	4.50%	4.00%	8.50%	1 to 7	4.50%	6.00%	10.50%
25	4.50	3.00	7.50	8 to 15	4.50	3.00	7.50
30	4.50	2.00	6.50	thereafter	4.50	0.00	4.50
35	4.50	2.00	6.50				
40	4.50	1.00	5.50				
45	4.50	1.00	5.50				
50	4.50	0.50	5.00				
55	4.50	0.50	5.00				
60	4.50	0.25	4.75				

* *First used for the September 30, 2010 valuation of the Plan.*

Mortality: The 1994 Group Annuity Mortality Table with ages unadjusted for men and set back one year for women was used in this valuation. This table was first used for the September 30, 2010 valuation. Sample values follow:

Sample Ages	Future Life Expectancy (Years)	
	Men	**Women**
50	30.69	35.84
55	26.15	31.11
60	21.83	26.49
65	17.84	22.11
70	14.29	18.08
75	11.12	14.31
80	8.37	10.93

This assumption is used to measure the probabilities of employees dying before retirement and the probabilities of health coverage being provided year by year after retirement. The membership size in this group is not sufficiently large to determine if there is a margin for mortality improvement. However, based upon our experience with a broad cross section of public sector plans similar in nature to this plan, it is our opinion that there is no provision for future mortality improvement in the current mortality assumption.

Medical Coverage was assumed to be available for all employees on attainment of age 65, or immediately if retired for disability.

Other: Terminated vested members of the Plan with incomplete data were assumed to elect two person health coverage upon retirement. Liabilities were loaded by four percent for the expected future impact of the “Cadillac Plan” status as defined by the Patient Protection and Affordable Care Act.

Medicare Part B Premium used in this valuation was $104.90 per month for future retirees and existing retirees.

Rates of separation from active membership: The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating within Next Year					
		General-DB	Command-DB	Sheriffs-DB	General-DC	Command-DC	Sheriffs-DC
ALL	0					9.00 %	8.00 %
	1					6.00	5.50
	2					5.00	4.50
	3					5.00	4.50
	4					5.00	4.50
	5 & Over						
20		5.00 %	4.00 %	4.00 %	7.00 %	5.00 %	4.00 %
25		5.00	4.00	4.00	7.00	5.00	4.00
30		4.00	3.40	3.40	6.00	3.70	3.40
35		4.00	2.50	2.50	4.40	2.40	2.50
40		3.00	1.80	1.80	3.40	1.70	1.80
45		3.00	1.30	1.30	3.00	1.30	1.30
50		2.00	0.80	0.80	3.00	1.20	0.80
55		1.00	0.40	0.40	3.00	1.20	0.40
60		0.50	0.10	0.10	3.00	1.20	0.10
65		0.50	-	-	3.00	1.20	-

The rates were first used for the September 30, 2010 valuation.

Rates of Disability: These rates represent the probabilities of active members becoming disabled.

Sample Ages	Percent Becoming Disabled within Next Year	
	General	Sheriffs
25	0.02%	0.15%
30	0.04	0.18
35	0.06	0.23
40	0.16	0.30
45	0.19	0.51
50	0.31	1.00
55	0.71	1.55

These rates were first used for the December 31, 1992 valuation.

Rates of Retirement: These rates are used to measure the probabilities of an eligible member retiring during the next year.

Percent of Active Members Retiring within One Year								
	General-DB	General-DC	Sheriff's Department - DB				Sheriff's Department - DC	
Ages	%	%	Ages	%	Service	%	Ages	%
55	20%	25%			25	40%	45	40%
56	15	20			26	35	46	40
57	15	15			27	35	47	40
58	15	20			28	35	48	40
59	15	20			29	35	49	40
60	20	20	60	20%	30	40	50	30
61	15	15	61	40	31	40	51	20
62	25	30	62	70	32	50	52	20
63	15	20	63	50	33	70	53	20
64	15	20	64	50	34	70	54	20
65	35	40	65	100	35	100	55	20
66	40	45					56	20
67	50	35					57	20
68	70	40					58	20
69	80	45					59	20
70	100	100					60	20
							61	40
							62	70
							63	50
							64	50
							65	100

A member was understood to be eligible for retirement after attaining age 55 with 25 or more years of service (after 25 years of service regardless of age for Sheriff's Department) or age 60 with 8 or more years of service. These rates were first used for the September 30, 2010 valuation.

Marital status at retirement: 85% of men and 70% of women were assumed to be married at retirement. This assumption is used for current active participants to predict the extent of premiums for single persons and for couples.

In general, trend factors are established by reviewing historical trends and evaluating their relationship with national and/or regional trends. The regional trend used for this purpose is the BCBS trend developed for their group business with over 100 employees per group, due to the prevalence of BCBS coverage in this region. Historical trends for the entire self-insured medical program – active and retiree combined – for the past seven years were also reviewed and factored in.

Health Cost Increase Assumptions **-** are shown below:

Year Beginning Sept. 30	Future Health Cost Increases Medical and Prescription Drugs
	Valuation Assumption
2014	9.00%
2015	8.50%
2016	8.00%
2017	7.50%
2018	7.00%
2019	6.50%
2020	6.00%
2021	5.50%
2022	5.00%
2023 & After	4.50%

Rates of Inflation for Medicare Part B and Dental/Vision Benefits

Year Beginning Dec. 31	Future Health Cost Increases
	Medicare Part B
2014	9.00%
2015	8.50
2016	8.00
2017	7.50
2018	7.00
2019	6.50
2020	6.00
2021	5.50
2022	5.00
2023 & after	4.50

Year Beginning Sept. 30	Future Health Cost Increases
	Dental & Vision
2014	4.50%
2015	4.50
2016	4.50
2017	4.50
2018	4.50
2019	4.50
2020	4.50
2021	4.50
2022	4.50
2023 & after	4.50

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". Under the actuarial cost method used the "AAL" differs somewhat from the value of future payments based on benefits earned as of the valuation date.

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, retirement, investment income and salary increases. Decrement assumptions (rates of mortality, separation 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 appropriate 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 normal costs to be paid in the future and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

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 contributions of interest and principal, as opposed to a lump sum payment.

Experience Gain (Loss) - A measure of the difference between actual experience and experience anticipated by 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". An amortization payment toward the unfunded actuarial accrued liability is in addition to the normal cost.

GLOSSARY

Reserve Account - An account used to indicate that funds have been set aside for a specific purpose and are 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".

Valuation Assets - The value of current plan assets recognized for valuation purposes.

APPENDIX

VALUATION RESULTS

BASED ON PREVIOUS ASSET VALUATION METHOD

CONTRIBUTIONS TO PROVIDE BENEFITS
FOR THE
FISCAL YEAR BEGINNING OCTOBER 1, 2014

Contributions for	Total
Normal cost of benefits	$13,059,364
Unfunded accrued liability	(11,811,711)
Employer contribution $	1,247,653

The employer contribution amount shown above was based on Valuation assets shown on the following page and a 10-year amortization of the funding surplus.

DEVELOPMENT OF VALUATION ASSETS
AS OF SEPTEMBER 30, 2013

		2013
A.	Funding Value Beginning of Year	$636,552,848
B.	Market Value End of Year	1,023,100,574
C.	Market Value Beginning of Year	671,922,646
D.	Non-Investment Net Cash Flow	
	D1. Member and employer contributions less benefit payments	10,820,372
	D2. End of Year Interim Asset Transfer	236,000,000
E.	Investment Income	
	E1. Market Total: B - C – D1 - D2	104,357,556
	E2. Assumed Rate (I)	7.50%
	E3. Amount for Immediate Recognition	
	I * (A + D1 / 2)	48,147,228
	E4. Amount for Phased-In Recognition: E1-E3	56,210,328
F.	Phased-In Recognition of Investment Income	
	F1. Current Year: E4 / 3	18,736,776
	F2. First Prior Year	23,786,142
	F3. Second Prior Year	(12,202,487)
	F4. Total Recognized Investment Gain	30,320,431
G.	**Funding Value End of Year: A + D1 + D2 + E3 + F5**	**$961,840,879**
H.	Difference between Market & Funding Value	61,259,695
I.	**Recognized Rate of Return:**	**10.3%**
J.	**Market Value Rate of Return:**	**13.1%**
K.	**Ratio of Funding Value to Market Value**	**0.94**