

*Employees' Retirement System of the  
County of Milwaukee*

*Actuarial Valuation Report*

*January 1, 2013*

*June, 2013*

**DRAFT**

June 12, 2013

The Retirement Board  
Employees' Retirement System of the  
County of Milwaukee  
901 N. 9<sup>th</sup> St.  
Milwaukee, WI 53233

Ladies and Gentlemen:

This report presents the results of the annual actuarial valuation of the Employees' Retirement System of the County of Milwaukee as of January 1, 2013. The valuation takes into account all of the promised benefits to which members are entitled as of January 1, 2013, including pension and survivor benefits; and as required by the Retirement Code is the basis for the Budget Contribution for fiscal year 2014.

The valuation was based on the actuarial assumptions and methods as adopted by the Board of Trustees, including a valuation interest rate of 8% per annum compounded annually. Based on our recommendations in November 2012, the Board adopted revised actuarial assumptions effective with the January 1, 2013 valuation. A Plan amendment has been reflected in the valuation since the January 1, 2012 valuation report. Effective with backdrop dates on or after April 1, 2013, the monthly drop benefit shall be based on the salary, service and multipliers as of April 1, 2013, except for Elected Officials, Skilled Trades, Machinists, Federated Nurses and Firefighters.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the Plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the Plan. The actuary performs an analysis of Plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience. The Experience Study for the period January 1, 2007 to December 31, 2011 was prepared by Buck Consultants and approved by the Board for use beginning with the January 1, 2013 actuarial valuation and will remain in effect for valuation purposes until such time as the Board adopts revised assumptions. The next Experience Study will be based on the period from January 1, 2012 to December 31, 2016 and upon approval by the Board will be the basis of valuations performed from January 1, 2018 through January 1, 2022. A summary of the actuarial assumptions and methods used in this actuarial valuation are shown in Table 15.

**Assets and Membership Data**

The Retirement System reported the individual data for members of the System as of the valuation date to the actuary. For 2013 we received the data in multiple files. Missing information was updated with either supplemental information sent or by using assumptions based on the prior year's data. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements prepared for us by the Retirement System.

### **Funding Adequacy**

The 2012 valuation performed last year resulted in an Actual Funding Contribution of \$24,875,193 against which \$18,410,496 (adjusted for interest shown on Table 11) and \$9,040,652 member contributions were actually contributed. The excess of \$2,575,955 will be amortized over five years.

The Actual Funding Contribution for 2013, based on the results of this valuation, is \$28,270,045. It is expected that \$30,582,000 (\$30,582,000 in expected contribution plus \$0 interest) will be contributed during 2014 on behalf of the 2013 plan year. The excess contribution of \$2,311,955 will be amortized over five years.

### **Budget Contribution**

The 2014 Budget Contribution, expected to be contributed in 2015, is \$29,062,000.

### **Financial Results and Membership Data**

Detailed summaries of the financial results of the valuation and membership data used in preparing the valuation are shown in the valuation report. The actuary prepared supporting schedules and required supplementary information included in the County of Milwaukee Annual Report of the Pension Board.

Qualified actuaries completed the valuation in accordance with accepted actuarial procedures as prescribed by the Actuarial Standards Board. The qualified actuaries are members of the American Academy of Actuaries and are experienced in performing actuarial valuations of public employee retirement systems. To the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally accepted actuarial principles and practice. The undersigned with actuarial designations are qualified to render the opinions contained in this report.

Respectfully submitted,



Larry Langer, ASA, EA, MAAA  
Principal, Consulting Actuary



Emily Urbaniak  
Senior Consultant, Retirement

LL/EU:pl

**EMPLOYEES’ RETIREMENT SYSTEM OF THE COUNTY OF MILWAUKEE**  
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## Executive Summary

This report presents the actuarial valuation as of January 1, 2013 for the Employees' Retirement System of the County of Milwaukee. The principal valuation results include:

- The Actual Funding Contribution for fiscal year 2013, which is \$28,270,045.
- The Annual Required Contribution for fiscal year 2013 in accordance with GASB requirements, which is \$32,136,934. GASB requires that the unfunded liability be amortized over a period of not more than thirty years. Typically the Annual Required Contribution and the Actual Funding Contribution are the same. Because the effective amortization period of the Actual Funding Contribution is over thirty years, the Annual Required Contribution cannot be the same as the Actual Funding Contribution. We have independently calculated the Annual Required Contribution as the normal cost plus interest plus a thirty year amortization of the unfunded liability.
- The Budget Contribution for fiscal year 2014, which is \$29,062,000.
- The total funded ratio of the plan determined as of January 1, 2013, which is 87.3% based on the accrued liability and the actuarial value of assets. On a market value basis, the plan is 87.3% funded.
- The determination of the actuarial gain or loss as of January 1, 2013, which is a gain of \$46,383,350.
- Annual disclosure as of January 1, 2013 as required by Statement No. 25 of the Governmental Accounting Standards Board.

The valuation was based on membership and financial data submitted by the Retirement System.

## **Changes Since Last Year**

### **Legislative and Administrative Changes**

No legislative or administrative changes have been adopted since the previous valuation, other than those that are listed below:

- Effective with backdrop dates on or after April 1, 2013, the monthly drop benefit shall be based on the salary, service and multipliers as of April 1, 2013, except for Elected Officials, Skilled Trades, Machinists, Federated Nurses and Firefighters. The plan change results in a decrease of the unfunded accrued liability in the amount of \$10,251,366.

Note that for purposes of the contribution rates shown in the report, these amounts are gross contribution amounts. It is our understanding that County staff will net out the amount of employee contributions that are collected to arrive at a net County contribution. The benefit and contribution provisions are outlined in Table 16.

### **Actuarial Assumptions and Methods**

The actuary recently recommended that the Board adopt new assumptions based upon the five-year experience review of the actuarial assumptions. The Board concurred with the actuary's recommendation and adopted a number of assumption changes that were used to calculate the actual 2013 contribution and the 2014 budget contribution. The asset method was changed from a five-year moving market to a ten-year moving market, with the actuarial value set to market as of January 1, 2013, resulting in a decrease of the unfunded accrued liability in the amount of \$16,737,554. The disability assumption for represented employees was changed from assuming that 10% of disabilities are Ordinary and 90% are Accidental to 50% Ordinary and 50% Accidental. The disability assumption for non-represented employees was changed from assuming that 95% of disabilities are Ordinary and 5% are Accidental to 100% Ordinary and 0% Accidental. In addition, the rates of retirement, disability, termination and mortality were modified to better reflect actual and expected experience. The individual salary increase for general employees was changed to an average of 3.3% per annum, for elected officials the individual salary increase was changed to 3.0% per annum and for deputy sheriffs the individual salary increase was changed to 4.3% per annum. The assumption changes resulted in an increase in the unfunded accrued liability in the amount of \$101,180,610.

The actuarial assumptions and methods are outlined in Table 15.

## Contribution Amounts

The results of the valuation as of January 1, 2013 determine the Actual Funding Contribution and Annual Required Contribution for fiscal year 2013 and the Budget Contribution for fiscal year 2014. The Actual Funding Contribution for fiscal year 2013 is \$28,270,045. The Annual Required Contribution for GASB 25 disclosure for fiscal year 2013 is \$32,136,934. The Budget Contribution for fiscal year 2014 is \$29,062,000. The actual 2013 contribution and budgeted 2014 contribution were based on assumptions and methods as adopted by the Board and participant data as of January 1, 2013.

### Reasons for Change in Budget Contribution Calculated by the Actuary

The Budget Contribution calculated by the actuary decreased from \$30,582,000 for fiscal year 2013 to \$29,062,000 for fiscal year 2014. A reconciliation of the decrease of \$1,520,000 is shown in the following table:

Item	Amount
1. 2013 Budget Contribution	\$ 30,582,000
2. Increase / (Decrease) during 2012 due to	
a. Unanticipated liability loss (gain)	\$ (6,045,000)
b. Asset experience other than expected	(576,000)
c. 2012 reimbursable expenses other than assumed	(39,000)
d. 2012 contribution variance other than assumed	(11,000)
e. Full recognition of bases other than assumed	(153,000)
f. Increase due to assumption/method/plan changes	<u>4,512,000</u>
g. Total	<u>(2,312,000)</u>
3. 2013 Actual Contribution (1 + 2)	\$ 28,270,000
4. Expected Increase / (Decrease) during 2013 due to	
a. Normal cost and existing amortization schedule	\$ 1,311,000
b. Phase-in of deferred asset (gains) losses	-
c. Amortization of 2013 reimbursable expenses	217,000
d. Expected contribution variance for 2013	(579,000)
e. Full recognition of 2004 reimbursable expenses	(157,000)
f. Increase due to plan changes	<u>-</u>
g. Total	<u>792,000</u>
5. 2014 Budget Contribution (3 + 4)	\$ 29,062,000

### Summary of Principal Results

Summarized below are the principal financial results for the Employees' Retirement System of the County of Milwaukee based upon the actuarial valuation as of January 1, 2013. Comparable results from the January 1, 2012 valuation are also shown.

Item	January 1, 2013	January 1, 2012
<b>Demographics</b>		
<u>Active Members</u>		
• Number	3,934	3,972
• Average Annual Pay	\$ 48,076	\$ 48,023
<u>Inactive Members</u>		
• Members Receiving Benefits		
• Number	7,867	7,747
• Average Annual Benefit Payment	\$ 20,089	\$ 19,212
• Members With Deferred Benefits		
• Number	1,196	1,341
• Average Annual Benefit Payment	\$ 6,980	\$ 7,114
<b>Actual Funding Contribution</b>		
	<b>(Fiscal Year 2013)</b>	<b>(Fiscal Year 2012)</b>
• Normal Cost with Interest	\$ 16,105,425	\$ 14,488,711
• Net Amortization Payments	<u>12,164,620</u>	<u>10,386,482</u>
• Total Contribution	\$ 28,270,045	\$ 24,875,193
<b>Actuarial Funded Status</b>		
• Accrued Liability	\$ 2,025,319,368	\$ 2,059,553,667
• Actuarial Value of Assets	<u>1,768,434,628</u>	<u>1,836,542,926</u>
• Unfunded Accrued Liability	\$ 256,884,740	\$ 223,010,741
• Funded Ratio	87.3 %	89.2 %

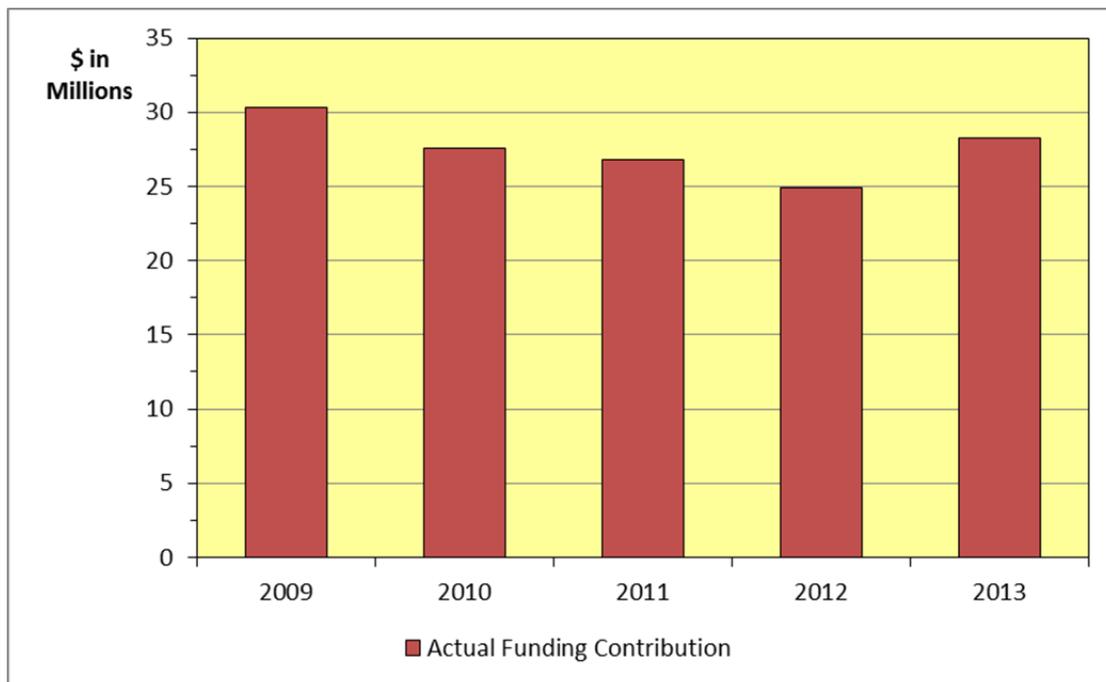
## Five-Year History of Principal Financial Results

### Five-Year History of Contribution Amounts

Valuation as of January 1	Actual Funding Contributions		
	Normal Cost with Interest	Net Amortization Payments	Total
2013	\$16,105,425	\$ 12,164,620	\$ 28,270,045
2012	14,488,711	10,386,482	24,875,193
2011	19,480,089	7,327,948	26,808,037
2010	20,736,844	6,813,146	27,549,990
2009	21,395,539	8,959,996	30,355,535

The following chart shows a five-year history of employer contribution amounts:

### Five-Year History of Actual Funding Contributions



## **Funded Ratio**

The financing objective of the System is to:

- Fully fund all current costs based on the normal contribution rate determined under the funding method; and
- Liquidate the unfunded accrued liability based on the amortization schedules as required by the retirement code, i.e., a schedule of 5, 10, or 30 years for each change in the unfunded accrued liability according to Section 3.1.

The total Actual Funding Contribution of \$28,270,045, when taken together with the contributions payable by the members and asset returns, is the amount sufficient to achieve the financing objective for 2013.

The System's total funded ratio on the funding basis is measured by comparing the actuarial value of assets (based on a 10-year moving average market value) with the accrued liability. The accrued liability for pensions is the present value of benefits accumulated to date under the System's funding method and reflects future pay increases for active employees.

On this basis, the System's funded ratio is 87.3% as of January 1, 2013. This funded ratio is based on an actuarial value of assets of \$1,768,434,628 and an accrued liability of \$2,025,319,368.

### **Reasons for Change in the Total Funded Ratio**

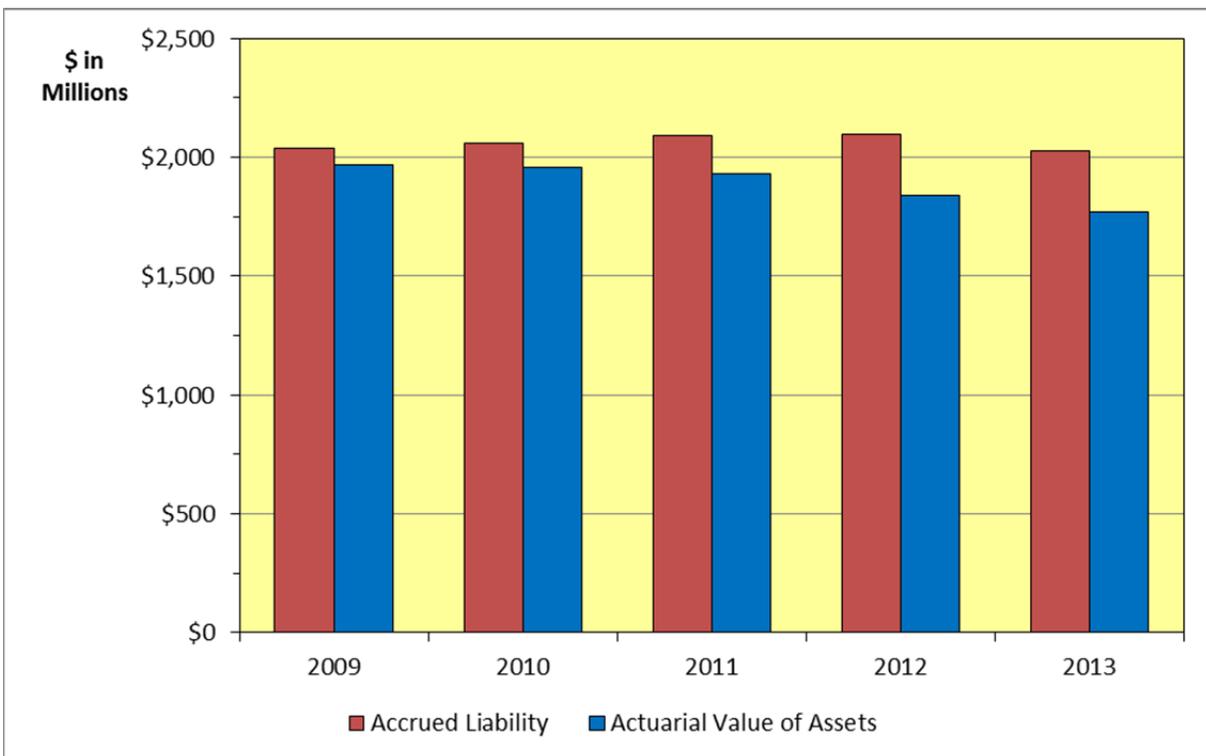
The total funded ratio decreased from 89.2% as of January 1, 2012 to 87.3% as of January 1, 2013. The decrease is due to net recognition of asset losses from calendar year 2008. Returns from 2012 were better than the expected return assumption of 8.0%. Overall liability experience was somewhat better than expected, which helped offset some of the decrease caused by asset experience.

**Five-Year History of Total Funded Ratio**  
(\$ Amounts in Thousands)

Valuation as of January 1	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
2013	\$ 2,025,319	\$ 1,768,435	\$ 256,884	87.3%
2012	2,059,554	1,836,543	223,011	89.2
2011	2,091,927	1,929,428	162,499	92.2
2010	2,097,332	1,956,444	140,888	93.3
2009	2,057,377	1,968,518	88,859	95.7

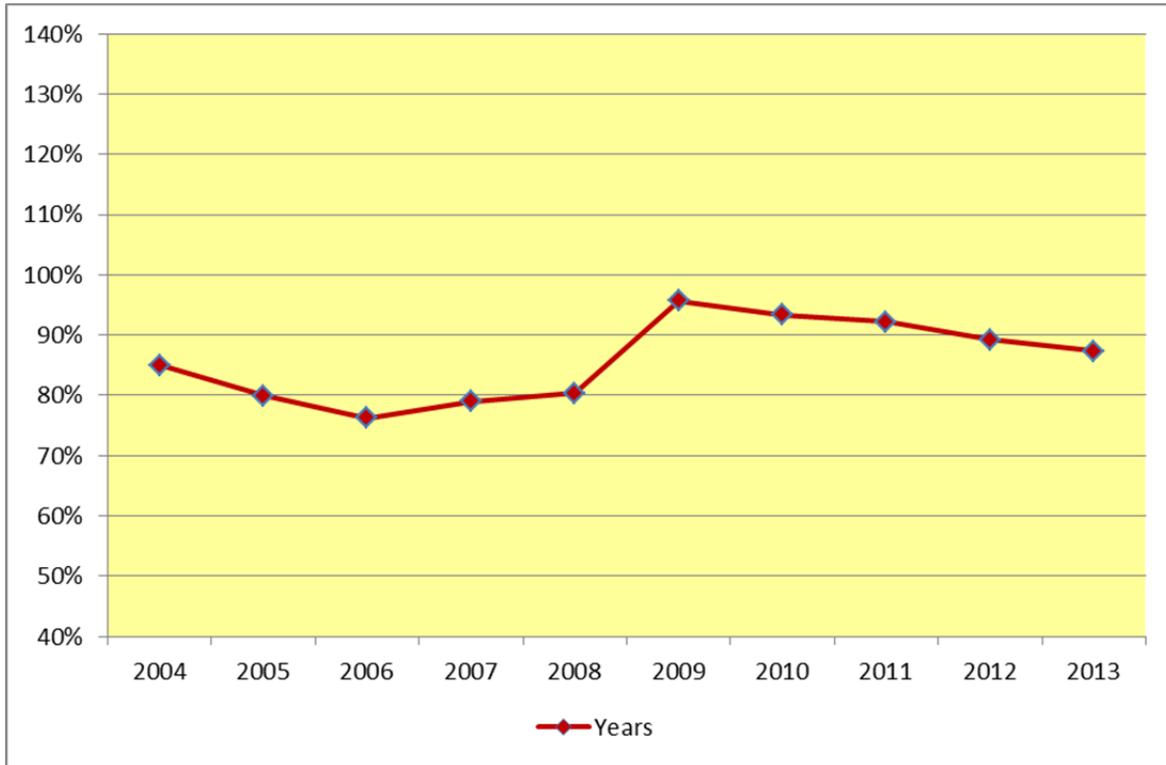
The following chart shows a five-year history of the accrued liability and the actuarial value of assets:

**Five-Year History of Accrued Liability and Actuarial Value of Assets**



The following chart shows a ten-year history of the total funded ratio:

**Ten-Year History of Total Funded Ratio  
(2004 - 2013)**



## **GASB No. 25 Disclosure**

Statement No. 25 of the Governmental Accounting Standards Board established reporting standards for the annual financial reports of defined benefit pension plans. The System complied with Statement No. 25 beginning with the January 1, 1997 valuation. The statement requires disclosure of the “schedule of funding progress” and the “schedule of employer contributions” in the System’s financial statements.

The “schedule of funding progress” shows historical trend information about the System’s actuarial value of assets, the actuarial accrued liability and the unfunded actuarial accrued liability. The actuarial funded ratio is measured by comparing the actuarial value of assets (based on a 10-year moving average market value) with the accrued liability. The accrued liability is the present value of benefits accumulated to date under the System’s funding method and reflects future pay increases for active employees. On this basis, the System’s funded ratio is 87.3% as of January 1, 2013. This funded ratio is based on an actuarial value of assets of \$1,768,434,628 and an accrued liability of \$2,025,319,368.

The “schedule of employer contributions” shows historical trend information about the annual required contribution (ARC) for pensions of the employer and the percentage of the ARC contributed to the System. The ARC is equal to the normal cost for pensions plus amortization of the unfunded actuarial accrued liability for pensions. The maximum period of amortizing the unfunded actuarial accrued liability permitted by GASB No. 25 is 30 years. The maximum amortization period decreased from 40 years to 30 years in 2007. The employer contributions to the System are equal to the normal cost plus a payment towards each change in the unfunded accrued liability, which are amortized over 5, 10 or 30-year periods, depending on the source of the changes. In 2012 and 2013, the ARC was set at the normal cost plus interest plus a thirty year amortization of the unfunded liability. Please refer to page one of this report for more details. The ARC and the actual employer percentage contributed for the five fiscal years ending December 31, 2013 are shown in Table 14.

## Rate of Return

The investment return of the trust fund (i.e. total return including both realized and unrealized gains and losses) for fiscal years 2008 through 2012 is shown in the table below. The return based on the actuarial value of assets used for determining annual contribution rates is also shown.

The rate of return on market value reflects the investment earnings on the market value of assets from the beginning of the fiscal year to the end of the fiscal year. The actuarial assets are the assets recognized for valuation purposes. Actuarial assets are based on a smoothed market value that spreads the difference between the actual and expected return over a period of ten years. The rate of return on the actuarial value of assets is a measure of the increase in the actuarial value of assets from the beginning of the fiscal year to the end of the fiscal year. The rates of return shown below have been developed by the actuary for illustrative purposes only. They are based on simplifying assumptions and as such, likely will not exactly match the returns presented by your investment consultants. The reader is encouraged to use the returns developed by the investment consultants.

### Five Year History of Asset Returns

As of 12/31	Asset Values		Estimated Rates of Return		
	Market	Actuarial	Market	Actuarial	Assumed
2012	\$1,768,434,628	\$1,768,434,628	10.8%	4.8%	8.0%
2011	1,742,106,887	\$1,836,542,926	0.2%	3.5%	8.0%
2010	1,895,166,843	1,929,427,864	11.7%	5.5%	8.0%
2009	1,822,539,885	1,956,443,729	20.4%	3.9%	8.0%
2008	1,595,610,970	1,968,518,479	(22.5%)	3.4%	8.0%

Compound Rate of Return (five years):      2.9%      4.2%

**TABLE 1****SUMMARY OF RESULTS OF ACTUARIAL VALUATION**

Item	January 1, 2013	January 1, 2012
<b>Participant Data</b>		
1. Number of Participants		
a) Active Participants	3,934	3,972
b) Participants with Deferred Benefits	1,196	1,341
c) Participants Receiving Benefits	<u>7,867</u>	<u>7,747</u>
d) Total	12,997	13,060
2. Annualized Salaries	\$ 189,131,711	\$ 190,747,973
3. Annual Annuities	\$ 158,040,281	\$ 148,838,576
<b>Valuation Results</b>		
4. Present Value of Future Benefits		
a) Active Participants	\$ 631,414,550	\$ 634,010,949
b) Participants with Deferred Benefits	53,055,044	64,746,242
c) Participants Receiving Benefits	<u>1,450,921,437</u>	<u>1,457,267,062</u>
d) Total	\$ 2,135,391,031	\$ 2,156,024,253
5. Present Value of Future Normal Cost	\$ 110,071,663	\$ 96,470,586
6. Actuarial Accrued Liability: (4 - 5)	\$ 2,025,319,368	\$ 2,059,553,667
7. Actuarial Value of Assets	\$ 1,768,434,628	\$ 1,836,542,926
8. Funded Status: (7 / 6)	87.3 %	89.2 %
9. Unfunded Actuarial Accrued Liability: (6 - 7)	\$ 256,884,740	\$ 223,010,741
10. Normal Cost Rate	8.194 %	7.309 %
11. Normal Cost for the Plan Year	\$ 15,497,452	\$ 13,941,769
<b>Actual Funding Contribution and Annual Required Contribution for Fiscal Year *</b>		
12. Actual Funding Contribution Calculated by Actuary		
a) Normal Cost with Interest	\$ 16,105,425	\$ 14,488,711
b) Net Annual Amortization Payments	<u>12,164,620</u>	<u>10,386,482</u>
c) Total Contribution: ((a + b), not less than zero)	\$ 28,270,045	\$ 24,875,193

\* Effective January 1, 2011 Elected Officials and Non-Represented employees contributed 2% of compensation. For all Non-Represented employees (other than elected officials), the contribution rate increased to 4% of compensation effective December 11, 2011. During 2011, State mandated contributions were implemented. The amounts shown above are gross of member contributions.

**TABLE 2**  
**SECURITY OF PROMISED BENEFITS**  
**UNFUNDED ACTUARIAL ACCRUED LIABILITY**  
**FUNDED STATUS**

Item	January 1, 2013	January 1, 2012
1. Actuarial Accrued Liability		
a. Active Participants		
Retirement Benefits	\$ 482,086,893	\$ 500,987,742
Withdrawal Benefits	31,247,071	26,372,313
Disability Benefits	3,155,488	4,111,707
Death Benefits	4,853,435	6,068,601
Total Active	<u>521,342,887</u>	<u>537,540,363</u>
b. Participants with Deferred Benefits	53,055,044	64,746,242
c. Participants Receiving Benefits	<u>1,450,921,437</u>	<u>1,457,267,062</u>
d. Total All Participants	2,025,319,368	2,059,553,667
2. Actuarial Value of Assets	1,768,434,628	1,836,542,926
3. Unfunded Actuarial Accrued Liability (1d - 2)	256,884,740	223,010,741
4. Funded Status (2 / 1d)	87.3%	89.2%

The interest rate used as of January 1, 2013 and January 1, 2012 was 8.00%

**TABLE 3****ACTUARIAL GAIN/(LOSS) FOR PLAN YEAR ENDING**

<b>Item</b>	<b>December 31, 2012</b>	<b>December 31, 2011</b>
1. Actuarial Accrued Liability at the Beginning of the Year	\$ 2,059,553,667	\$ 2,091,926,651
2. Increases/(Decreases) During the Year		
a. Normal Cost for the Year	13,941,769	18,744,724
b. Member Contributions	-	-
c. Benefit Payments and Refunds	(178,769,275)	(187,530,154)
d. Assumed Interest to End of Year	158,652,700	160,862,600
e. Plan and Assumption Changes	90,929,244	(275,129)
f. Total: (a + b + c + d + e)	84,754,438	(8,197,959)
3. Expected Liability at the End of the Year: (1 + 2)	2,144,308,105	2,083,728,692
4. Actuarial Accrued Liability at the End of the Year	2,025,319,368	2,059,553,667
<b>5. Liability Gain/(Loss): (3 - 4)</b>	<b>\$ 118,988,737</b>	<b>\$ 24,175,025</b>
6. Actuarial Value of Assets at the Beginning of the Year	\$ 1,836,542,926	\$ 1,929,427,864
7. Increases/(Decreases) During the Year		
a. County Contributions	18,410,496	28,275,594
b. Member Contributions for Service Purchases	9,040,652	3,313,807
c. Pension Obligation Bond Proceeds	-	-
d. Benefit Payments and Refunds	(178,769,275)	(187,530,154)
e. Administrative Expenses payable to the County	(1,187,236)	(1,548,921)
f. Assumed Interest to End of Year	140,264,898	147,127,362
g. Total: (a + b + c + d + e + f)	(12,240,465)	(10,362,312)
8. Expected Actuarial Assets at the End of the Year (6 + 7)	1,824,302,461	1,919,065,552
9. Actuarial Value of Assets at the End of the Year *	1,751,697,074	1,836,542,926
<b>10. Actuarial Asset Gain/(Loss): (9 - 8)</b>	<b>\$ (72,605,387)</b>	<b>\$ (82,522,626)</b>
<b>11. Total Gain/(Loss): (5 + 10)</b>	<b>\$ 46,383,350</b>	<b>\$ (58,347,601)</b>

\* Actuarial value prior to the method change

Effective January 1, 2012, the normal retirement age was increased to age 64 for future hires only for DC48, Building Trades and FNHP. The multiplier was decreased from 2.0% to 1.6% for current members' future service and future hires' total service for the DC48, Building Trades and FNHP effective August 1, 2011, January 1, 2012 and January 1, 2012, respectively.

Note that for purposes of the contribution rates shown in the report, these amounts are gross contribution amounts. It is our understanding that County staff will net out the amount of employee contributions that are collected to arrive at a net County contribution.

**TABLE 4****AMORTIZATION SCHEDULE FOR ACTUAL FUNDING CONTRIBUTION  
FOR 2013 PLAN YEAR**

Type of Payment	Amortization Period				Balances		Payment
	Date Created	Initial Years	Remaining Years	Last Payment	Initial	Outstanding	
<b>1. Charges</b>							
Expense	1/1/2004	10	1	2013	\$ 1,052,422	\$ 145,742	\$ 157,401
Reestablished unfunded	1/1/2004	30	21	2033	257,960,162	300,131,466	22,857,209
Expense	1/1/2005	10	2	2014	1,053,714	280,522	157,308
Loss	1/1/2005	30	22	2034	88,729,863	101,181,525	7,489,643
Expense	1/1/2006	10	3	2015	972,805	373,615	144,977
Assumption Change	1/1/2006	30	23	2035	95,861,177	106,924,608	7,707,638
Expense	1/1/2007	10	4	2016	988,048	487,708	147,248
Expense	1/1/2008	10	5	2017	915,868	544,972	136,491
Method Change	1/1/2008	30	25	2037	48,020,858	51,801,949	3,559,326
Expense	1/1/2009	10	6	2018	1,031,291	710,501	153,693
Loss	1/1/2009	30	26	2038	70,007,095	74,567,434	5,013,484
Expense	1/1/2010	10	7	2019	1,312,156	1,018,105	195,550
Loss	1/1/2010	30	27	2039	84,943,001	89,216,368	5,877,393
Expense	1/1/2011	10	8	2020	1,310,356	1,122,212	195,282
Loss	1/1/2011	30	28	2040	21,412,971	22,149,756	1,431,507
Expense	1/1/2012	10	9	2021	1,548,921	1,442,000	230,835
Loss	1/1/2012	30	29	2041	58,347,601	59,374,087	3,768,768
Expense	1/1/2013	10	10	2022	1,187,236	1,187,236	176,933
Assumption Change	1/1/2013	30	30	2042	101,180,610	101,180,610	6,314,419
<b>Total Charges</b>						<b>\$ 913,840,416</b>	<b>\$ 65,715,105</b>
<b>2. Credits</b>							
Gain	1/1/2006	30	23	2035	\$ 12,975,497	\$ 14,473,009	\$ 1,043,284
Gain	1/1/2007	30	24	2036	55,348,557	60,380,687	4,246,044
Assumption Change	1/1/2007	30	24	2036	26,558,457	28,973,077	2,037,421
Gain	1/1/2008	30	25	2037	61,342,303	66,172,304	4,546,717
Pension Obligation Bond Proceeds	1/1/2009	30	26	2038	363,950,833	387,659,006	26,063,949
Variance	1/1/2010	5	2	2014	30,784,078	13,749,098	7,710,071
Plan Change	1/1/2010	30	27	2039	1,589,892	1,669,877	110,008
Variance	1/1/2011	5	3	2015	5,343,718	3,449,105	1,338,369
Plan Change	1/1/2011	30	28	2040	227,128	234,944	15,183
Variance	1/1/2012	5	4	2016	4,781,394	3,966,375	1,197,531
Plan Change	1/1/2012	30	29	2041	275,129	279,969	17,771
Variance	1/1/2013	5	5	2017	2,575,955	2,575,955	645,165
Gain	1/1/2013	30	30	2042	46,383,350	46,383,350	2,894,664
Method Change	1/1/2013	30	30	2042	16,737,554	16,737,554	1,044,547
Plan Change	1/1/2013	30	30	2042	10,251,366	10,251,366	639,761
<b>Total Credits</b>						<b>\$ 656,955,676</b>	<b>\$ 53,550,485</b>
<b>3. Net Amount (1 - 2)</b>						<b>\$ 256,884,740</b>	<b>\$ 12,164,620</b>

Annual amortization payments of the reestablished unfunded actuarial accrued liability (UAAL), and changes to the UAAL arising from plan changes, assumption changes, and actuarial gains/losses are amortized as a level percentage of payroll, assuming payroll growth of 3.5% per year over a 30-year period.

Administrative expenses incurred by the County related to the System are payable by the System to the County. The County then reimburses the System for this payment on a level dollar basis over 10 years.

The variance between the amount contributed to the System for a plan year, and the actual contribution requirement for that year is amortized on a level dollar basis over 5 years. As the result of the sale of \$397,797,000 in Pension Obligation Bonds, all existing bases at January 1, 2009 arising from variances between amounts contributed to the System and actual contribution requirements were considered fully recognized. This reduced the net outstanding balance of amortizations by \$33,846,167.

The recognized balances have been offset against the proceeds of the sale of the Pension Obligation Bonds. The remaining amount of \$363,950,833 has been amortized as a level percent of payroll over a period of 30 years.

**TABLE 5**

**DEVELOPMENT OF NORMAL COST  
FOR CURRENT AND PRIOR PLAN YEAR ACTUAL FUNDING CALCULATIONS**

Item	January 1, 2013	January 1, 2012
1. Present Value of Projected Benefits		
a. Active Participants		
Retirement Benefits	\$ 569,036,237	\$ 573,360,812
Withdrawal Benefits	45,914,783	38,699,612
Disability Benefits	9,903,960	13,984,607
Death Benefits	6,559,570	7,965,918
Total Active	631,414,550	634,010,949
b. Participants with Deferred Benefits	53,055,044	64,746,242
c. Participants Receiving Benefits	1,450,921,437	1,457,267,062
d. Total All Participants	2,135,391,031	2,156,024,253
2. Actuarial Value of Assets	1,768,434,628	1,836,542,926
3. Unfunded Actuarial Accrued Liability	256,884,740	223,010,741
4. Present Value of Future Normal Costs (1d - 2 - 3 )	110,071,663	96,470,586
5. Present Value of Future Salaries	1,343,305,928	1,319,892,855
6. Normal Cost Rate (4 / 5)	8.194%	7.309%
7. Expected Salaries for the Plan Year*	189,131,711	190,747,973
8. <b>Normal Cost for the Plan Year</b> (6 x 7)	<b>15,497,452</b>	<b>13,941,769</b>

\* Prior-year earnings increased by the salary assumption and limited by the IRS compensation limit for those under the mandatory retirement age.

**TABLE 6**

**COUNTY AND MEMBERS CONTRIBUTION REQUIREMENTS**  
**COUNTY CONTRIBUTION REQUIREMENTS**

Item	2014 Budget	2013	
		Actual	Budget
1. Normal Cost with Interest	\$ 16,669,000	\$ 16,105,425	\$ 14,996,000
2. Net Annual Amortizations	12,393,000	12,164,620	15,586,000
3. Total Contribution (1 + 2, not less than zero)	\$ 29,062,000	\$ 28,270,045	\$ 30,582,000

Note that for purposes of the contribution rates shown in the report, these amounts are gross contribution amounts. It is our understanding that County staff will net out the amount of employee contributions that are collected to arrive at a net County contribution.

**STATE MANDATED MEMBER CONTRIBUTIONS**

Item	Results Based on Current Contributions			
	Non-Contributors	Public Safety	General	All Members
<b>Valuation Results as of January 1, 2013</b>				
1. Present Value of Future Benefits				
a) Active Participants *	\$ -	\$ 85,477,434	\$ 545,937,116	\$ 631,414,550
b) Participants with Deferred Benefits	53,055,044	-	-	53,055,044
c) Participants Receiving Benefits	1,450,921,437	-	-	1,450,921,437
d) Total	\$ 1,503,976,481	\$ 85,477,434	\$ 545,937,116	\$ 2,135,391,031
2. Present Value of Future Normal Cost	\$ -	\$ 10,951,749	\$ 99,119,914	\$ 110,071,663
3. Actuarial Accrued Liability: (1 - 2)	\$ 1,503,976,481	\$ 74,525,685	\$ 446,817,202	\$ 2,025,319,368
4. Actuarial Value of Assets	\$ 1,313,217,131	\$ 65,073,096	\$ 390,144,401	\$ 1,768,434,628
5. Funded Status: (4 / 3)	87.3%	87.3%	87.3%	87.3%
6. Unfunded Actuarial Accrued Liability: (3 - 4)	\$ 190,759,350	\$ 9,452,589	\$ 56,672,801	\$ 256,884,740
7. Normal Cost Rate	0.000%	7.827%	8.237%	8.194%
8. Total Normal Cost for the Plan Year	\$ -	\$ 1,508,892	\$ 13,988,560	\$ 15,497,452
<b>Projected Employee Contribution for 2014</b>				
1. Actual Contribution for 2013				
a) Normal Cost with Interest	\$ -	\$ 1,568,087	\$ 14,537,338	\$ 16,105,425
b) Net Annual Amortization Payments **	9,033,292	447,622	2,683,706	12,164,620
c) Total Contribution: ((a + b), not less than zero)	\$ 9,033,292	\$ 2,015,709	\$ 17,221,044	\$ 28,270,045
2. Employee Contribution (50% of 1c for Contributors)	N/A	\$ 1,007,855	\$ 8,610,522	N/A
3. Expected Salaries in 2014	0	19,278,756	169,852,955	189,131,711
4. Employee Contribution Rate (2÷3)	N/A	5.2%	5.1%	N/A

\* The actives in the Public Safety group include 320 members comprised of Represented Firefighters and Sheriffs and Non-Represented Firefighters and Sheriffs.

\*\* The Net Annual Amortization Payments for the Contributors was prorated based on the contributors' actuarial accrued liability compared to total actuarial accrued liability of the Retirement System. These payments include amortization payments for administrative expenses.

**TABLE 7****SUMMARY STATEMENT OF MARKET VALUE OF PLAN ASSETS**

<b>Asset Category</b>	<b>December 31, 2012</b>	<b>December 31, 2011</b>
1. Cash and Cash Equivalents	\$ 56,933,710	\$ 84,107,639
2. Investments at Fair Value		
a. Domestic common and preferred stocks	\$ 408,643,021	\$ 387,653,669
b. Futures Contracts	-	1,104,141
c. Corporate bonds	445,499,443	249,379,922
d. International common and preferred stocks	348,646,991	306,112,944
e. Federal agency and mortgage-backed certificates	-	133,475,643
f. International fixed income	-	14,673,730
g. U.S. Government and state obligations	-	75,427,923
h. Real estate investment trusts	127,429,416	114,522,432
i. Long/Short Hedge Funds	181,417,205	174,104,924
j. Infrastructure	130,214,951	134,188,424
k. Venture capital	-	27,604,723
l. Total Investments	1,641,851,027	1,618,248,475
3. Contributions Receivable for OBRA and ERS	19,290,496	29,524,818
4. (Payable) to OBRA Pension Plan	(1,631,303)	(1,543,452)
6. Net All Other Receivables (Liabilities)	51,990,698	11,769,407
7. Net Assets Held in Trust for ERS Pension Benefits (1 + 2l + 3 + 4 + 5 + 6)	\$ 1,768,434,628	\$ 1,742,106,887

**TABLE 8****SUMMARY RECONCILIATION OF MARKET VALUE OF PLAN ASSETS**

Item	For Year Ending December 31, 2012	For Year Ending December 31, 2011
1. Market Value of Assets at the Beginning of the Year	\$ 1,742,106,887	\$ 1,895,166,843
2. Contributions for Plan Year		
a. County	\$ 18,410,496	\$ 28,275,594
b. Member	9,040,652	3,313,807
c. Total	<u>27,451,148</u>	<u>31,589,401</u>
3. Disbursements for Plan Year		
a. Benefit payments and refunds	\$ 178,769,275	\$ 187,530,154
b. Administrative expenses payable to County	1,187,236	1,548,921
c. Total	<u>179,956,511</u>	<u>189,079,075</u>
4. Proceeds of Pension Obligation Bonds	-	-
5. Market Value of Assets at the End of the Year	1,768,434,628	1,742,106,887
6. Net Investment Income * (5 - 1 - 2c + 3c - 4)	178,833,104	4,429,718
7. Expected Net Investment Income (8.00% per annum)	132,710,015	144,386,480
8. Gain (Loss) on Market Value of Assets (6 - 7)	46,123,089	(139,956,762)
9. Estimated Rate of Return	10.8%	0.2%

\* Net Investment Income is the change in the value of assets for reasons other than contributions and disbursements.

**TABLE 9****DERIVATION OF ACTUARIAL VALUE OF PLAN ASSETS  
AS OF DECEMBER 31, 2012**

1. Market Value of Assets as of December 31, 2012			\$ 1,768,434,628
2. Determination of Deferred Gain (Loss)			
Year	Gain/(Loss)	Percentage Deferred	Amount Deferred
2012	\$ 46,123,089		
2011	(139,956,762)		
2010	64,351,281		
2009	190,363,140		
2008	(486,133,267)		
2007	(27,533,110)		
2006	82,494,242		
2005	(2,393,630)		
2004	63,554,640		
2003	213,416,041		-
Total			-
3. Actuarial Value of Assets (1 - 2)			\$ 1,768,434,628

**TABLE 10**

**SUMMARY RECONCILIATION OF ACTUARIAL VALUE OF PLAN ASSETS  
AS OF DECEMBER 31, 2012**

Item	For Year Ending December 31, 2012	For Year Ending December 31, 2011
1. Actuarial Value of Assets at the Beginning of the year	\$ 1,836,542,926	\$ 1,929,427,864
2. Contributions for Plan Year		
a. County	\$ 18,410,496	\$ 28,275,594
b. Member	9,040,652	3,313,807
c. Total	<u>27,451,148</u>	<u>31,589,401</u>
3. Disbursements for Plan Year		
a. Benefit payments and refunds	\$ 178,769,275	\$ 187,530,154
b. Administrative expenses payable to County	1,187,236	1,548,921
c. Total	<u>179,956,511</u>	<u>189,079,075</u>
4. Proceeds of Pension Obligation Bonds	-	-
5. Actuarial Value of Assets at the End of the Year	1,768,434,628	1,836,542,926
6. Net Investment Income *	84,397,065	64,604,736
(5 - 1 - 2c + 3c - 4)		
7. Expected Net Investment Income (8.00% per annum)	140,264,898	147,127,362
8. Gain (Loss) on Actuarial Value of Assets	(55,867,833)	(82,522,626)
(6 - 7)		
9. Estimated Rate of Return	4.8%	3.5%

\* Net Investment Income is the change in the value of assets for reasons other than contributions and disbursements.

**TABLE 11**  
**CONTRIBUTIONS FOR 2012 PLAN YEAR**  
**AND VARIANCE FROM THE FUNDING CALCULATION CONTRIBUTION**

Item	Amount																																													
1. Total Funding Calculation, End-of-Year Basis, for 2012 Plan Year (from January 1, 2012 actuarial valuation report)	\$ 24,875,193																																													
2. Total Employer Contributions Made, End-of-Year Basis																																														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Contribution Made</th> <th style="text-align: center;">Fraction of a Year Invested</th> <th style="text-align: center;">Contribution Amount</th> <th style="text-align: center;">Interest to Year End*</th> <th style="text-align: center;">End of Year Amount</th> </tr> </thead> <tbody> <tr> <td>Bi-weekly</td> <td style="text-align: center;">50.0%</td> <td style="text-align: right;">\$ -</td> <td style="text-align: center;">\$ -</td> <td style="text-align: right;">\$ -</td> </tr> <tr> <td>3/15/2013</td> <td style="text-align: center;">0.0%</td> <td style="text-align: right;">2,200,000</td> <td style="text-align: center;">-</td> <td style="text-align: right;">2,200,000</td> </tr> <tr> <td>4/15/2013</td> <td style="text-align: center;">0.0%</td> <td style="text-align: right;">3,000,000</td> <td style="text-align: center;">-</td> <td style="text-align: right;">3,000,000</td> </tr> <tr> <td>5/15/2013</td> <td style="text-align: center;">0.0%</td> <td style="text-align: right;">3,000,000</td> <td style="text-align: center;">-</td> <td style="text-align: right;">3,000,000</td> </tr> <tr> <td>6/15/2013</td> <td style="text-align: center;">0.0%</td> <td style="text-align: right;">3,000,000</td> <td style="text-align: center;">-</td> <td style="text-align: right;">3,000,000</td> </tr> <tr> <td>7/15/2013</td> <td style="text-align: center;">0.0%</td> <td style="text-align: right;">5,000,000</td> <td style="text-align: center;">-</td> <td style="text-align: right;">5,000,000</td> </tr> <tr> <td>8/15/2013</td> <td style="text-align: center;">0.0%</td> <td style="text-align: right;">2,210,496</td> <td style="text-align: center;">-</td> <td style="text-align: right;">2,210,496</td> </tr> <tr> <td style="text-align: center;">Total</td> <td></td> <td style="text-align: right;">\$ 18,410,496</td> <td style="text-align: center;">\$ -</td> <td style="text-align: right;">\$ 18,410,496</td> </tr> </tbody> </table>	Contribution Made	Fraction of a Year Invested	Contribution Amount	Interest to Year End*	End of Year Amount	Bi-weekly	50.0%	\$ -	\$ -	\$ -	3/15/2013	0.0%	2,200,000	-	2,200,000	4/15/2013	0.0%	3,000,000	-	3,000,000	5/15/2013	0.0%	3,000,000	-	3,000,000	6/15/2013	0.0%	3,000,000	-	3,000,000	7/15/2013	0.0%	5,000,000	-	5,000,000	8/15/2013	0.0%	2,210,496	-	2,210,496	Total		\$ 18,410,496	\$ -	\$ 18,410,496	
Contribution Made	Fraction of a Year Invested	Contribution Amount	Interest to Year End*	End of Year Amount																																										
Bi-weekly	50.0%	\$ -	\$ -	\$ -																																										
3/15/2013	0.0%	2,200,000	-	2,200,000																																										
4/15/2013	0.0%	3,000,000	-	3,000,000																																										
5/15/2013	0.0%	3,000,000	-	3,000,000																																										
6/15/2013	0.0%	3,000,000	-	3,000,000																																										
7/15/2013	0.0%	5,000,000	-	5,000,000																																										
8/15/2013	0.0%	2,210,496	-	2,210,496																																										
Total		\$ 18,410,496	\$ -	\$ 18,410,496																																										
3. Total Member Contributions	\$ 9,040,652																																													
4. Variance from Funding Calculation Amount** (2 + 3 - 1)	\$ 2,575,955																																													

\* Interest to 12/31/2012 at 8.00% per annum

\*\* Variance will be amortized on a level dollar basis over five years.

Note that for purposes of the contribution rates shown in the report, these amounts are gross contribution amounts. It is our understanding that County staff will net out the amount of employee contributions that are collected to arrive at a net County contribution.

**TABLE 12****GASB NOS. 25 AND 27 DISCLOSURE INFORMATION  
FOR CURRENT AND PRIOR PLAN YEAR****Equivalent Single Amortization Period**

<b>Item</b>	<b>January 1, 2013</b>	<b>January 1, 2012</b>
1. Covered Payroll	\$ 189,131,711	\$ 190,747,973
2. Unfunded Amount	256,884,740	223,010,741
3. Amortization Payment	12,164,620	10,386,482
4. Payment as a Level Percentage of Payroll (3 / 1)	6.43%	5.45%
5. Weighted Average Amortization Period (2 / 3)	21.12	21.47
6. Equivalent Single Amortization Period (Nearest Whole Year)	71	80

**Net Pension Obligation**

<b>Item</b>	<b>January 1, 2013</b>	<b>January 1, 2012</b>
1. Annual Required Contribution (ARC)	\$ 32,136,934	\$ 28,406,232
2. Interest on Net Pension Obligation	(33,566,974)	(33,065,169)
3. Adjustment to ARC	26,185,346	25,793,892
4. Annual Pension Cost (APC)	24,755,306	21,134,955
5. Contributions made*	(30,582,000)	(27,407,519)
6. Increase (Decrease) in Net Pension Obligation	(5,826,694)	(6,272,564)
7. Net Pension Obligation at Beginning of Year	(419,587,178)	(413,314,614)
8. Net Pension Obligation at End of Year**	(425,413,872)	(419,587,178)
9. Percent of APC Contributed	123.54%	129.68%

\* Contributions for 2013 are estimated based on the County budget

\*\* NPO at December 31, 2013 is estimated based on expected contributions to be made for the year

**TABLE 13**

**REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF FUNDING PROGRESS**

(\$ Amounts in Thousands)

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (b)</b>	<b>Funded Ratio (a/b)</b>	<b>Unfunded Actuarial Accrued Liability (b - a)</b>	<b>Covered Payroll (c)</b>	<b>Unfunded as a Percentage of Covered Payroll [(b - a)/c]</b>
12/31/2012	\$ 1,768,435	\$ 2,025,319	87.3%	\$ 256,884	\$ 189,132	135.8%
12/31/2011	1,836,543	2,059,554	89.2%	223,011	190,748	116.9%
12/31/2010	1,929,428	2,091,927	92.2%	162,499	221,647	73.3%
12/31/2009	1,956,444	2,097,332	93.3%	140,888	237,040	59.4%
12/31/2008	1,968,518	2,057,377	95.7%	88,859	233,820	38.0%

**TABLE 14**

**SCHEDULE OF EMPLOYER CONTRIBUTIONS  
GASB STATEMENT NO. 25 DISCLOSURE**

Fiscal Year Ended December 31	Annual Required Cost	Percentage Contributed
2013	\$ 32,136,934	95.2 % *
2012	28,406,232	96.5
2011	29,621,216	106.3
2010	29,529,322	106.0
2009	30,355,535	1508.1

\* Contributions for 2013 are estimated based on the County budget

The information presented above was determined as part of the actuarial valuation as of the dates indicated (i.e., the contribution determined by the valuation completed as of January 1, 2012 was contributed in the fiscal year ending December 31, 2012).

Additional information as of the latest actuarial valuation follows:

Valuation Date:	01/01/2013
Actuarial Cost Method:	Aggregate Entry Age Normal
Amortization Method:	Level percent of payroll, closed
Remaining Amortization Period:	5-30 Years
Asset Valuation Method:	10-year smoothed market

Actuarial Assumptions:

- Investment Rate of Return	8.00%
- Payroll Growth	3.50%

**TABLE 15****DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS****ASSUMPTIONS**

**Interest Rate:** 8.0% per annum, compounded annually. The components are 3.0% for inflation and 5.0% for the real rate of return.

**Separation From Service:** Illustrative rates of assumed separation from service are shown in the following tables.

**Annual Rates per 100 Participants**

<b>Mortality*</b>				
<b>Attained Age</b>	<b>Healthy Pensioners</b>		<b>Disabled Pensioners</b>	
	<b>Males</b>	<b>Females</b>	<b>Males</b>	<b>Females</b>
45	0.09	0.05	2.26	0.75
50	0.14	0.08	2.90	1.15
55	0.23	0.15	3.54	1.65
60	0.44	0.30	4.20	2.18
65	0.84	0.59	5.02	2.80
70	1.34	0.94	6.26	3.76
75	2.14	1.47	8.21	5.22
80	3.86	2.59	10.94	7.23
85	6.40	4.55	14.16	10.02

\* Healthy pensioners: The sex-distinct UP-1994 Mortality Table with projection scale AA to 2012 and then fully generational thereafter using scale AA.

Active members: 70% of the rates applicable to healthy pensioners.

Disabled pensioners: RP2000 Disabled Mortality Table.

**TABLE 15**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
(Continued)

**Annual Rates per 100 Participants**

Attained Age	Withdrawal – Ultimate			Disability
	General Employees	Elected Officials*	Deputy Sheriffs	
20	20.00	2.00	20.00	0.00
25	18.10	2.00	18.10	0.04
30	8.10	2.00	8.10	0.05
35	5.20	2.00	5.20	0.07
40	4.00	2.00	4.00	0.12
45	3.70	2.00	3.70	0.16
50	3.70	2.00	3.70	0.16
55	1.00	2.00	1.00	0.16
60	0.00	0.00	0.00	0.16
65	0.00	0.00	0.00	0.16

\* Select rates for elected officials assume no turnover for first four years.

**TABLE 15**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
(Continued)

**Annual Rates per 100 Participants**

<b>Retirement Rates</b>				
<b>Attained Age</b>	<b>General Employees (backdrop eligible)</b>	<b>General Employees (not backdrop eligible)</b>	<b>Elected Officials</b>	<b>Deputy Sheriffs</b>
45-49	14.0	0.0	0.0	15.0
50-54	14.0	14.0	0.0	30.0
55	14.0	14.0	19.8	30.0
56	15.0	15.0	19.8	30.0
57	16.0	16.0	23.0	30.0
58	17.0	17.0	20.4	30.0
59	17.0	17.0	24.8	30.0
60	17.0	17.0	19.4	30.0
61	25.0	25.0	22.5	50.0
62	30.0	30.0	28.4	50.0
63	30.0	30.0	26.6	50.0
64	30.0	30.0	24.3	50.0
65	40.0	40.0	30.4	100.0
66	40.0	40.0	22.5	100.0
67	40.0	40.0	25.7	100.0
68	40.0	40.0	34.2	100.0
69	40.0	40.0	36.0	100.0
70	100.0	100.0	100.0	100.0

**TABLE 15**

**DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**  
(Continued)

**Salary Increase:** Effective average of 3.5% per annum, compounded annually. Representative values are as follows:

**Annual Rate of Salary Increase**

<b>Age</b>	<b>General Employees</b>	<b>Elected Officials</b>	<b>Deputy Sheriffs</b>
20	9.5%	3.0%	9.5%
25	5.0	3.0	8.0
30	4.0	3.0	6.1
35	3.7	3.0	4.6
40	3.5	3.0	3.7
45	3.0	3.0	3.3
50	3.0	3.0	3.0
55	3.0	3.0	3.0
60	3.0	3.0	3.0
Average	3.3	3.0	4.3

**Payroll Growth:** 3.5% per annum.

**MISCELLANEOUS**

**Percentage Married/Age Difference:** Male 80%, female 80%. Beneficiaries are assumed to be the same age as the participant.

**Percentage Married with at Least One Dependent Child:** 21.6% for General Employees, 43.2% for Deputy Sheriffs and Elected Officials. For those who die prior to age 60, it is assumed at least one child will remain a dependent until the member would have turned age 60.

**Backdrop Rate:** 75% of eligible retirees are assumed to elect a backdrop. Of those electing, 75% are assumed to take the maximum period available to them and 25% take half the maximum period available based on eligibility for an unreduced retirement benefit.

**Assumed Type of Disability:** For represented employees the assumption is 50% Ordinary and 50% Accidental and for non-represented employees, the assumption is 100% Ordinary and 0% Accidental.

**TABLE 15****DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS**

(Continued)

**METHODS**

**Calculations:** The actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system, and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

**Actuarial Cost Method:** Liabilities and contributions shown in this report are computed using the Aggregate Entry Age Normal Cost Method. The outstanding balance of the unfunded actuarial accrued liability (UAAL) as of January 1, 2004 and any changes to the UAAL arising from plan changes, assumption changes, and actuarial gains/losses are amortized as a level percentage of payroll over a 30-year period.

Administrative expenses incurred by the County related to the System are payable by the System to the County. The County then reimburses the System for this payment on a level dollar basis over 10 years.

The variance between the amount contributed to the System for a plan year, and the actual contribution requirement for that year is amortized on a level dollar basis over 5 years. POB proceeds were not subject to the contribution variance requirements.

**Asset Valuation Method:** A ten-year moving market average value of assets that recognizes the actuarial expected investment return immediately and spreads the difference between the actual and expected return over a period of ten years. Assets were re-established at market value on January 1, 2013.

**DATA**

**Census and Assets:** The valuation was based on members of the System as of January 1, 2013 and does not take into account future members. All census data was supplied by the System and was subject to reasonable consistency checks. Asset data was supplied by the System.

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS****MEMBERSHIP**

Any person regularly employed by the County at an annual wage or salary, including any person employed by the State of Wisconsin, but receiving part of his compensation from the County.

**VESTING SERVICE**

Service during period of employment in the County or in any department in any town, village, city or metropolitan sewerage commission in the County, which department has by consolidation or merger been absorbed by the County.

Creditable service shall consist of “prior service”, “military service”, and “membership service”, for which service credit is allowable under Section 4, Chapter 201, Laws of 1937, as well as service under Executive Order 11231, July 8, 1965, for Vietnam. Additional credit for periods of military service will be earned in accordance with the following chart:

Years of Service with Milwaukee County	Maximum Years of Military Service Granted
0-4	0
5-9	1
10-14	2
15-19	3
20+	4

**BENEFIT SERVICE**

Same as vesting service except service prior to becoming a participant does not count.

**EARNINGS**

Earnable compensation is the full rate of compensation payable to member if he worked the full normal working time for his position, including authorized overtime payments and the compensation rate assumed to have been received while the member is on authorized leave of absence. In cases where compensation includes maintenance, the Pension Board shall fix the value of that part of the compensation not payable in

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

money. Compensation shall not exceed \$255,000 in the pension calculation as indexed for changes in the cost of living.

For all members except certain deputy sheriffs hired on or after January 1, 1982, the final average salary means the average annual salary for the highest three (3) consecutive years of service. For deputy sheriffs hired on or after January 1, 1982, excluding DA Investigators and non-represented deputy sheriffs, the final average salary means the average annual salary for the highest five (5) consecutive years of service. For DA Investigators and non-represented deputy sheriffs hired before July 1, 1995 and all non-deputy sheriff members hired before January 1, 1982, the final average salary is increased 7.5% for each year worked after January 1, 2001 to a maximum of 25%.

**VOLUNTARY  
EMPLOYEE  
CONTRIBUTION**

Up to 10% of earnings, provided that the employee was contributing on January 1, 1971.

**MANDATORY  
EMPLOYEE  
CONTRIBUTION**

Effective January 1, 2011 Elected Officials and Non-Represented employees contributed 2% of compensation. For all Non-Represented employees (other than elected officials), the contribution rate increased to 4% of compensation effective December 11, 2011.

**BENEFITS**

Normal Retirement

Eligibility

Elected Officials:

Age 60, or age 55 with 30 years of service. For elected officials hired before January 1, 2006, the combination of age and service adding up to 75 (Rule of 75) also applies.

General Employees:

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

For firefighters, Federated Nurses, and Machinists:

Age 60 with 5 years of service, or age 55 with 30 years of service. For firefighters hired before December 1, 1996, Federated Nurses hired before January 1, 1997, and Machinists hired before January 1, 1994, Rule of 75 also applies. For Federated Nurses and Machinists hired after January 1, 2012, age 64 or age 55 with 30 years of service.

For Attorneys, Skilled Trades, non-represented employees, DC48, and Teamco:

Age 60, or age 55 with 30 years of service. For attorneys, Skilled Trades, and non-represented employees hired before January 1, 2006 and DC48 and Teamco hired before January 1, 1994, Rule of 75 also applies.

For attorneys, Skilled Trades, non-represented employees, and TEAMCO hired after January 1, 2010, age 64 or age 55 with 30 years of service.

For DC48 hired after August 1, 2011, age 64 or age 55 with 30 years of service.

For non-represented employees (excluding Elected Officials, Deputy Sheriffs), attorneys, machinists and TEAMCO hired after January 1, 2010, retirement age is 64.

**Deputy Sheriffs:**

Age 57, or age 55 with 15 years of service. For deputy sheriffs, DA Investigators, and non-represented deputy sheriffs hired before January 1, 1994, Rule of 75 also applies.

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

Amount

Elected Officials:

For elected officials hired before March 15, 2002, 2.5% of final average salary per year of service before October 14, 2010 and 1.6% of final average salary per year of service thereafter, not greater than 80%. For elected officials hired on or after March 15, 2002, 2.0% of final average salary per year of service before October 14, 2010 and 1.6% of final average salary per year of service thereafter, not greater than 80%.

General Employees:

2.0% of final average salary per year of service, not greater than 80%. For non-represented employees (excluding Elected Officials and Deputy Sheriffs), 1.6% of final average salary per year of service from January 1, 2010; for attorneys and TEAMCO, the 1.6% provision is effective May 1, 2010; for machinists, June 1, 2010; for DC48, effective August 1, 2011; for building trades and FNHP, effective January 1, 2012.

Deputy Sheriffs:

For deputy sheriffs hired before July 1, 1995 and DA Investigators and non-represented deputy sheriffs, 2.5% of final average salary per year of service, not greater than 80%. For deputy sheriffs hired on or after July 1, 1995, 2.0% of final average salary per year of service, not greater than 80%.

For all members, 1.6% of final average salary per year of service after 80% of final average salary has been reached.

In addition to the pension portion, the benefit includes any voluntary contribution balance. Benefits should not be less than under previous system.

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

Early Retirement

Eligibility	Age 55 with 15 years of service.
Amount	Benefits reduced by 5/12 of 1% for each month by which commencement of payments precedes Normal Retirement Age. For deputy sheriffs, DA Investigators, and non-represented deputy sheriffs, benefit reduction does not apply.

Ordinary Disability Benefit

Eligibility	After 15 years of service.
Amount	Benefits calculated as for normal retirement benefits. Minimum benefit is 25% of final average salary.

Accidental Disability Benefit

Eligibility	Immediate.
Amount	Benefits are the same as normal retirement benefits if the employee has attained the minimum Normal Retirement Age. If less than Normal Retirement Age at time of disability, the benefit is computed the same as for normal retirement but is not less than 75% or 60% of final average salary.

Elected Officials

For elected officials hired before February 19, 1987, the benefit is not less than 75% of final average salary. For all other elected officials, the benefit is not less than 60% of final average salary.

General Employees

For non-represented employees hired before February 19, 1987, attorneys hired on or after January 1, 1987, Skilled Trades hired before October 30, 1987, Federated Nurses hired before January 1, 1987, Machinists hired before May 18, 1988, DC48 hired before July 24, 1987, and Teamco hired before January 12, 1988, the benefit is not less than 75% of final

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

average salary. For all other general employees, the benefit is not less than 60% of final average salary.

Deputy Sheriffs

For all deputy sheriffs, the benefit is not less than 75% of final average salary. For DA Investigators and non-represented deputy sheriffs hired on or after February 19, 1987, the benefit is not less than 60% of final average salary.

Ordinary Death Benefit

Upon the death of a deputy sheriff in active service for any cause other than accidental, the surviving spouse or child shall be entitled to receive the benefit under the provision of survivor benefits if the deceased member has completed at least one (1) year of service and is not eligible for normal retirement.

Accidental Death Benefit

Upon the death of a deputy sheriff caused by an accident in active duty, a survivorship benefit equal to fifty (50) percent of final average salary shall be granted to the following members:

- 1) A surviving spouse for life or until remarriage, or
- 2) If there is no spouse or spouse dies or remarries before the youngest child has attained age 18, the benefit is payable to his child(ren) under age 18 until the youngest child attains said age, or
- 3) If there is no spouse or child(ren) under age 18, the benefit is payable to his dependent father or mother to continue for life.

The monthly benefit aforementioned shall not be less than the benefit under ordinary death benefit section if death had not occurred in performance of duty.

Lump Sum Benefit Upon Death

Upon a death of members, a lump sum benefit of one-half the final average salary of the deceased member, not greater than two thousand dollars (\$2,000) shall be paid to designated beneficiary if such member has completed one (1) year of service and no survivors' benefits payable under any other survivorship benefits.

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

**Deferred Vested Benefit**

Upon termination of employment, a member who does not elect to withdraw any part of his membership account shall be eligible for a deferred vested benefit if:

- 1) The accrued benefit at age 60 is at least \$10 per month
- 2) 5 years of service

The benefit is computed the same as for a normal retirement benefit considering earnings and service prior to date of termination.

**Survivor Benefit**

Upon the death of a member prior to age 60 and after completing at least one (1) year of service, a monthly benefit equal to 40% of the member's salary for the year of his death less monthly survivor benefits payable under the Social Security law shall be payable to his surviving spouse if she has at least one dependent child and was married to the member at least one (1) year prior to his death. Upon attainment of age 60 the dependent spouse shall be paid a benefit equal to 50% of the normal pension which the member would have received assuming service had continued to accrue to age 60 and the final average salary determined at death. In addition, a monthly benefit equal to 10% of the member's monthly salary less the benefits payable to child under Social Security law shall be payable to each eligible children until he attains age 18 or marries, or until attainment of age 22 if he is a student and not married.

Any member eligible for normal retirement may elect the protective survivorship option by selecting option 2 or 3 under the Optional Benefit section. This survivorship option shall become effective at the death of the member. If any member eligible to elect an option shall die in active service, without selecting an option, his surviving spouse shall be paid a survivorship benefit equal to the amount that would have been payable if such member had retired under option 3 immediately prior to his death.

**Optional Benefit**

In lieu of the full retirement benefit, any member at retirement may elect to receive an actuarial equivalent reduced retirement benefit in accordance with the following options:

**TABLE 16****SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**

(Continued)

- Option 1. In case of death before benefits attributable to his mandatory account have equaled the amount of his membership account at the date of retirement, the balance shall be paid to a designated beneficiary or to his estate; or
- Option 2. At the death of the member, one-half of the reduced benefit shall be continued throughout the life of designated beneficiary; or
- Option 3. At the death of the member, the same reduced benefit shall be continued throughout the life of designated beneficiary.

**Other Benefits**

Simple COLA	2% of original benefit increase per year to retired employees (surviving beneficiary receives proportionate amount based on survivorship percentage).
Contribution Refund	Refund of employee voluntary contribution upon severance.
Backdrop Benefit	<p>Employee may opt to receive a monthly benefit earned as of a specific date in the past (backdrop date). The backdrop date may not be prior to the earliest date that the member was eligible to retire and shall not be less than one (1) year prior to the date the member leaves active County service. Employee receives a cash payment equal to monthly benefits that would have been paid between backdrop date and actual retirement date plus interest earned.</p> <p>Effective with backdrop dates on or after April 1, 2013, the monthly drop benefit shall be based on the salary, service and multipliers as of April 1, 2013, except for Elected Officials, Skilled Trades, Machinists, Federated Nurses and Firefighters.</p> <p>Members not eligible for backdrop benefits are Elected Officials, non-represented employees and deputy sheriffs hired on or after March 15, 2002, Machinists and Teamco hired on or after November 4, 2005, Attorneys hired on or after January 1, 2006, Federated Nurses hired on or after December 15, 2005, Firefighters hired on or after June 19, 2007 and DC48 hired on or after February 1, 2007.</p>

**TABLE 17****SUMMARY OF MEMBERSHIP DATA  
AS OF JANUARY 1, 2013****Active Participants**

<b>Item</b>	<b>General Employees</b>	<b>Deputy Sheriffs *</b>	<b>Elected Officials</b>	<b>Total</b>
Number of Participants	3,621	293	20	3,934
Average Annual Salaries **	\$ 47,081	\$ 61,908	\$ 63,992	\$ 48,076
Average Age	45.8	44.8	50.4	45.8
Average Service	11.2	17.6	10.0	11.7

\* Includes 8 non-represented deputy sheriffs.

\*\* The salaries shown in the table above represent a rate of pay increased by the salary assumption.

**Inactive Participants**

<b>Item</b>	<b>Number</b>	<b>Annual Annuities</b>	<b>Average Annuities</b>	<b>Average Age</b>
Participants with Deferred Benefits	1,196	\$ 8,348,075	\$ 6,980	52.1
Retired Participants	6,745	140,351,579	20,808	70.8
Beneficiaries	868	12,502,130	14,403	77.1
Disability Retirees	<u>254</u>	<u>5,186,572</u>	<u>20,420</u>	<u>63.7</u>
Total	9,063	\$ 166,388,356	\$ 18,359	68.7

**TABLE 18****ACTIVE MEMBERSHIP STATISTICS (UNAUDITED)**

	<b>2012</b>
Members as of January 1	5,313 *
Changes during the year:	
New enrollments	355
Nonvested terminations	(287)
Retirements	(254)
Deaths in active service	(6)
New deferred beneficiaries	0
Data Adjustment	9
Members as of December 31	<u>5,130</u> *
*This total includes vested inactive members.	

**RETIREMENTS AND SURVIVORS (UNAUDITED)**

	Retirements granted								Survivors & Benefi- ciaries	Total
	Maxi- mum Pension	Options								
		Refund	100%	75%	50%	25%	10-yr	Other		
January 1, 2012	3,125	398	1,345	228	1,089	418	180	50	914	7,747
Changes during the year:										
Adjustments (actuary) *	38	-	-	-	-	7	3	-	-	48
Retirements	207	-	66	13	27	18	14	-	19	364
Pensioner deaths	(159)	-	(28)	-	(39)	-	-	(1)	(65)	(292)
December 31, 2012	3,211	398	1,383	241	1,077	443	197	49	868	7,867

\* Adjustments as a result of reclassifications made to beginning balances by the actuary:

**EXHIBIT I****ACTIVE MEMBERSHIP DATA – ALL EMPLOYEES****NUMBER AND AVERAGE ANNUAL SALARY\*  
AS OF JANUARY 1, 2013**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>	62 \$21,749									62 \$21,749
<b>25-29</b>	233 \$31,372	18								251 \$32,217
<b>30-34</b>	242 \$34,968	95 \$47,232	24 \$50,005	1						362 \$39,282
<b>35-39</b>	198 \$40,839	95 \$47,976	122 \$49,118	18						433 \$45,623
<b>40-44</b>	178 \$38,443	104 \$53,103	160 \$51,597	113 \$60,741	35 \$55,540	1				591 \$49,882
<b>45-49</b>	113 \$39,888	76 \$50,423	135 \$48,661	125 \$55,921	156 \$55,900	28 \$59,652	2			635 \$50,990
<b>50-54</b>	100 \$34,397	94 \$51,056	117 \$46,928	106 \$53,886	200 \$54,276	78 \$59,617	11			706 \$50,368
<b>55-59</b>	84 \$44,232	51 \$45,518	94 \$50,179	87 \$55,922	143 \$60,103	73 \$63,285	26 \$62,227	5		563 \$54,602
<b>60-64</b>	36 \$43,689	53 \$52,979	50 \$49,947	38 \$52,753	47 \$62,761	24 \$62,557	12	8		268 \$56,042
<b>Over 64</b>	8	10	16	12	7	7	2	1		63 \$ 56,778
<b>Total</b>	1,254 \$36,393	596 \$49,822	718 \$49,454	500 \$56,639	588 \$56,856	211 \$62,156	53 \$65,535	14		3,934 \$48,076

\* Compensation in cells with fewer than 20 records has been suppressed.

**EXHIBIT II****ACTIVE MEMBERSHIP DATA – GENERAL EMPLOYEES****NUMBER AND AVERAGE ANNUAL SALARY\*  
AS OF JANUARY 1, 2013**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>	62 \$21,749									62 \$21,749
<b>25-29</b>	232 \$31,364	18								250 \$32,213
<b>30-34</b>	241 \$34,329	93 \$46,977	18	1						353 \$38,445
<b>35-39</b>	193 \$40,686	94 \$48,012	95 \$46,426	11						393 \$44,417
<b>40-44</b>	178 \$38,443	100 \$53,961	133 \$49,628	48 \$55,059	23 \$52,068	1				483 \$47,063
<b>45-49</b>	112 \$39,046	74 \$51,184	121 \$47,929	95 \$53,136	122 \$53,804	24 \$55,009	2			550 \$49,058
<b>50-54</b>	99 \$34,410	94 \$51,056	112 \$46,263	90 \$52,468	178 \$53,046	74 \$59,005	11			658 \$49,439
<b>55-59</b>	84 \$44,232	51 \$45,518	93 \$49,246	85 \$55,088	136 \$60,129	70 \$62,864	26 \$62,227	5		550 \$54,154
<b>60-64</b>	36 \$43,689	52 \$52,330	50 \$49,947	37 \$52,502	47 \$62,761	21 \$62,955	12	8		263 \$55,860
<b>Over 64</b>	8	9	14	12	7	6	2	1		59 \$ 56,491
<b>Total</b>	1,245 \$36,156	585 \$49,951	636 \$48,126	379 \$54,046	513 \$55,942	196 \$61,203	53 \$65,535	14		3,621 \$47,081

\* Compensation in cells with fewer than 20 records has been suppressed.  
Eight non-represented deputy sheriffs are included with Deputy Sheriffs exhibit.

**EXHIBIT III****ACTIVE MEMBERSHIP DATA – DEPUTY SHERIFFS****NUMBER AND AVERAGE ANNUAL SALARY\*  
AS OF JANUARY 1, 2013**

Age	Years of Service									Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<b>Under 25</b>										
<b>25-29</b>										
<b>30-34</b>	1	1	6							8
<b>35-39</b>	1	1	27 \$58,591	7						36 \$59,098
<b>40-44</b>		3	27 \$61,293	65 \$64,937	12					107 \$62,582
<b>45-49</b>		2	13	30 \$64,740	34 \$63,420	4				83 \$62,777
<b>50-54</b>			5	16	22 \$64,229	4				47 \$63,738
<b>55-59</b>				1	5	3				9
<b>60-64</b>				1		2				3
<b>Over 64</b>										
<b>Total</b>	2	7	78 \$59,043	120 \$64,369	73 \$63,397	13				293 \$61,908

\* Compensation in cells with fewer than 20 records has been suppressed.  
Includes 8 non-represented deputy sheriffs.

**EXHIBIT IV****ACTIVE MEMBERSHIP DATA – ELECTED OFFICIALS****NUMBER AND AVERAGE ANNUAL SALARY\*  
AS OF JANUARY 1, 2013**

Age	Years of Service								Total	
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39		40+
<b>Under 25</b>										
<b>25-29</b>	1									1
<b>30-34</b>		1								1
<b>35-39</b>	4									4
<b>40-44</b>		1								1
<b>45-49</b>	1		1							2
<b>50-54</b>	1									1
<b>55-59</b>			1	1	2					4
<b>60-64</b>		1					1			2
<b>Over 64</b>		1	2				1			4
<b>Total</b>	7	4	4	1	2	2				20
										\$63,992

\* Compensation in cells with fewer than 20 records has been suppressed.

**EXHIBIT V****ACTIVE AND DEFERRED VESTED MEMBERS OBTAINING  
RETIREMENT ELIGIBILITY OVER NEXT FIVE CALENDAR YEARS****Actives Reaching Retirement Eligibility**

<b>Year</b>	<b>General Employees</b>	<b>Elected Officials</b>	<b>Deputy Sheriffs</b>	<b>Total</b>
Eligible at Valuation Date	530	9	12	551
2013	120	0	2	122
2014	138	0	4	142
2015	127	0	5	132
2016	163	1	13	177
2017	134	0	8	142
Total Over Next 5 Years	682	1	32	715
Grand Total Eligible	1,212	10	44	1,266

**Deferred Vesteds Reaching Retirement Age**

<b>Year</b>	<b>Total</b>
2013	93
2014	77
2015	70
2016	63
2017	66
Total Over Next 5 Years	369

**EXHIBIT VI****RETIREE AND BENEFICIARY MEMBERSHIP DATA  
AS OF JANUARY 1, 2013****NUMBER AND AVERAGE ANNUAL BENEFIT**

<b>Age Last Birthday</b>	<b>Number</b>	<b>Annual Benefit</b>	<b>Average Annual Benefit</b>
<b>Retired Participants</b>			
Under 60	776	\$ 21,663,041	\$ 27,916
60 - 64	1,518	33,216,299	21,882
65 - 69	1,367	29,680,517	21,712
70 - 74	913	18,982,770	20,792
75 - 79	755	15,295,716	20,259
Over 79	1,416	21,513,236	15,193
<b>Total</b>	<b>6,745</b>	<b>\$ 140,351,579</b>	<b>\$ 20,808</b>
<b>Beneficiary Participants</b>			
Under 60	82	\$ 1,189,120	\$ 14,501
60 - 64	61	1,061,423	17,400
65 - 69	75	1,305,131	17,402
70 - 74	82	1,374,892	16,767
75 - 79	119	1,763,091	14,816
Over 79	449	5,808,473	12,936
<b>Total</b>	<b>868</b>	<b>\$ 12,502,130</b>	<b>\$ 14,403</b>
<b>Disabled Participants</b>			
Under 60	105	\$ 2,456,629	\$ 23,396
60 - 64	41	865,565	21,111
65 - 69	31	562,730	18,153
70 - 74	25	473,321	18,933
75 - 79	22	361,882	16,449
Over 79	30	466,445	15,548
<b>Total</b>	<b>254</b>	<b>\$ 5,186,572</b>	<b>\$ 20,420</b>
<b>Grand Total</b>	<b>7,867</b>	<b>\$ 158,040,281</b>	<b>\$ 20,089</b>

**EXHIBIT VII****5-YEAR HISTORY OF MEMBERSHIP DATA****Active Participants**

<b>Valuation as of January 1</b>	<b>Number of Active Participants</b>	<b>Percentage Change in Membership</b>	<b>Total Annual Payroll</b>	<b>Percentage Change in Payroll</b>
2013	3,934	(0.96)%	\$ 189,131,711	(0.85)%
2012	3,972	(10.70)%	190,747,973	(13.94)%
2011	4,448	(7.49)%	221,647,443	(6.49)%
2010	4,808	(0.60)%	237,040,117	1.38 %
2009	4,837	0.48 %	233,820,179	2.84 %

**Retired, Disabled, and Beneficiary Participants**

<b>Valuation as of January 1</b>	<b>Number on roll</b>	<b>Additions</b>	<b>Deletions</b>	<b>Percentage Change in Membership</b>	<b>Annual Annuities</b>	<b>Percentage Change in Annuities</b>
2013	7,867	412	292	1.55 %	158,040,281	6.18 %
2012	7,747	576	270	4.11 %	148,838,576	3.95 %
2011	7,441	368	219	2.04 %	143,188,151	4.23 %
2010	7,292	283	299	(0.22)%	137,374,794	2.24 %
2009	7,308	222	235		134,363,234	

**EXHIBIT VIII**

**DETAILED TABULATIONS OF THE DATA**

TABLE VIII-A

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JANUARY 1, 2013  
ALL EMPLOYEES**

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women	
	Number	Compensation	Number	Compensation
21	1		3	
22	4		4	
23	10		6	
24	13		20	\$ 412,028
25	18		20	480,638
26	29	\$ 1,024,502	27	761,299
27	27	1,026,923	20	554,195
28	25	866,359	30	900,731
29	32	1,184,484	23	583,810
30	29	1,122,006	44	1,486,511
31	30	1,064,518	28	913,999
32	35	1,561,874	36	1,426,209
33	40	1,727,152	37	1,350,123
34	30	1,113,208	54	2,313,330
35	41	2,032,297	36	1,283,680
36	38	1,669,923	47	1,950,139
37	55	2,913,271	51	2,048,211
38	43	2,262,108	45	2,235,596
39	30	1,349,592	47	1,797,109
40	51	2,542,974	55	2,513,331
41	57	2,755,282	55	2,317,227
42	59	3,265,665	62	3,068,708
43	72	3,918,628	80	3,717,147
44	44	2,243,252	56	2,848,468
45	58	3,166,121	70	3,254,450
46	64	3,497,493	81	3,812,206
47	55	2,834,304	67	3,143,507
48	50	2,643,581	66	3,154,899
49	49	2,823,938	75	3,796,623

TABLE VIII-A

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JANUARY 1, 2013  
ALL EMPLOYEES**

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women	
	Number	Compensation	Number	Compensation
50	69	\$ 3,521,249	77	\$ 3,830,366
51	47	2,488,980	65	2,854,465
52	67	3,814,703	92	4,515,075
53	58	3,319,595	83	3,968,959
54	60	3,118,407	88	4,060,474
55	53	3,045,268	71	3,623,807
56	55	3,157,111	75	3,767,424
57	56	3,723,559	60	2,774,661
58	47	2,922,008	48	2,295,409
59	49	2,781,614	49	2,661,345
60	23	1,178,350	43	2,030,048
61	39	2,628,714	32	1,469,888
62	28	1,912,586	25	1,167,954
63	18		26	1,432,524
64	19		15	
65	8		12	
66	14		8	
67			2	
68	1		2	
69	1		3	
70	2		3	
71	2			
72				
73				
74			3	
75				
76	1			
77				
78			1	
<b>Total</b>	1,806	\$ 93,806,814	2,128	\$ 95,324,897

TABLE VIII-B

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
YEARS OF CREDITED SERVICE AS OF JANUARY 1, 2013  
ALL EMPLOYEES**

(Compensation in cells with fewer than 20 records has been suppressed)

Years of Service	Men		Women	
	Number	Compensation	Number	Compensation
0	175	\$ 3,704,513	225	\$ 4,136,461
1	139	6,283,831	182	7,389,718
2	73	3,342,749	84	3,293,625
3	69	3,427,489	89	3,902,120
4	103	4,825,533	115	5,158,637
5	50	2,512,809	71	3,358,931
6	61	3,209,437	58	2,722,762
7	64	3,277,041	101	5,018,664
8	45	2,498,013	52	2,383,761
9	38	1,859,545	56	2,618,397
10	62	3,137,889	47	1,818,683
11	82	4,353,747	75	3,237,798
12	81	4,279,641	96	4,369,400
13	81	4,250,921	85	4,263,669
14	53	2,882,922	56	2,653,239
15	55	3,138,556	51	2,769,514
16	50	3,214,461	56	2,866,494
17	50	3,217,403	26	1,384,126
18	58	3,362,822	58	2,962,401
19	46	2,558,655	50	2,641,672
20	69	4,445,440	77	3,876,308
21	61	3,776,219	65	3,431,984
22	49	2,998,807	55	2,577,568
23	35	2,034,658	84	4,522,182
24	36	2,284,244	57	3,350,886
25	25	1,959,534	31	1,676,831
26	21	1,569,486	29	1,568,039
27	23	1,504,198	30	1,631,509
28	10		21	1,215,836
29	10		11	
30	7		4	
31	4		13	
32	7		6	
33	4		4	
34	2		2	
35	2		4	
36	2		1	
37	3		1	
38	1			
<b>Total</b>	1,806	\$ 93,806,814	2,128	\$ 95,324,897

TABLE VIII-C

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JANUARY 1, 2013  
GENERAL EMPLOYEES**

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women	
	Number	Compensation	Number	Compensation
21	1		3	
22	4		4	
23	10		5	
24	13		20	\$ 412,028
25	18		20	480,638
26	28	\$ 990,371	27	761,299
27	27	1,026,923	20	554,195
28	25	866,359	30	900,731
29	32	1,184,484	23	583,810
30	29	1,122,006	44	1,486,511
31	30	1,064,518	28	913,999
32	34	1,511,445	35	1,360,046
33	38	1,622,160	37	1,350,123
34	27	984,228	52	2,073,952
35	39	1,910,161	35	1,226,290
36	35	1,484,734	46	1,889,246
37	41	2,156,884	49	1,917,454
38	35	1,815,378	42	2,049,748
39	26	1,145,909	46	1,734,517
40	40	1,846,376	54	2,446,947
41	40	1,786,402	49	1,938,455
42	41	2,129,493	58	2,818,159
43	51	2,630,704	77	3,556,678
44	24	1,008,591	50	2,475,710
45	45	2,373,222	64	2,872,211
46	46	2,358,359	79	3,689,412
47	43	2,088,197	61	2,746,701
48	42	2,144,005	62	2,960,937
49	38	2,097,130	70	3,453,808

TABLE VIII-C

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JANUARY 1, 2013  
GENERAL EMPLOYEES**

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women	
	Number	Compensation	Number	Compensation
50	55	\$ 2,625,819	73	\$ 3,576,638
51	40	2,061,944	65	2,854,465
52	58	3,313,715	87	4,161,168
53	51	2,901,274	83	3,968,959
54	57	2,934,880	88	4,060,474
55	50	2,841,172	71	3,623,807
56	51	2,774,943	75	3,767,424
57	54	3,609,310	59	2,712,596
58	46	2,854,285	48	2,295,409
59	47	2,657,515	49	2,661,345
60	23	1,178,350	43	2,030,048
61	38	2,566,664	32	1,469,888
62	25	1,733,513	25	1,167,954
63	17		26	1,432,524
64	19		15	
65	8		11	
66	12		8	
67			2	
68	1		2	
69			3	
70	2		3	
71	2			
72				
73				
74			3	
75				
76	1			
77				
78			1	
<b>Total</b>	1,559	\$ 78,952,481	2,062	\$ 91,529,321

TABLE VIII-D

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
YEARS OF CREDITED SERVICE AS OF JANUARY 1, 2013  
GENERAL EMPLOYEES**

(Compensation in cells with fewer than 20 records has been suppressed)

Years of Service	Men		Women	
	Number	Compensation	Number	Compensation
0	171	\$ 3,446,886	225	\$ 4,019,692
1	137	6,167,825	182	7,474,282
2	73	3,381,430	83	3,141,607
3	69	3,470,042	89	3,940,482
4	101	4,764,878	115	5,206,966
5	50	2,541,420	70	3,335,160
6	61	3,237,614	58	2,743,052
7	63	3,285,352	101	5,058,314
8	43	2,439,890	50	2,279,102
9	33	1,667,584	56	2,633,695
10	54	2,741,832	46	1,808,720
11	74	3,888,265	72	3,103,477
12	67	3,503,113	90	4,024,986
13	62	3,107,126	81	4,035,025
14	41	2,174,362	49	2,221,093
15	34	1,841,242	47	2,547,554
16	34	2,190,213	52	2,623,669
17	27	1,729,464	20	1,003,904
18	36	1,932,863	55	2,776,361
19	29	1,500,131	45	2,337,847
20	41	2,690,157	68	3,353,107
21	50	3,100,834	63	3,319,344
22	42	2,580,644	55	2,587,520
23	29	1,661,683	81	4,322,241
24	30	1,906,721	54	3,176,168
25	22	1,773,313	30	1,586,301
26	17		28	1,489,958
27	19		30	1,634,960
28	9		21	1,218,175
29	9		11	
30	7		4	
31	4		13	
32	7		6	
33	4		4	
34	2		2	
35	2		4	
36	2		1	
37	3		1	
38	1			
<b>Total</b>	1,559	\$ 78,952,481	2,062	\$ 91,529,321

TABLE VIII-E

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JANUARY 1, 2013  
DEPUTY SHERIFFS**

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women	
	Number	Compensation	Number	Compensation
31				
32	1			
33	2			
34	3		2	
35	2		2	
36	3		1	
37	10		2	
38	8		3	
39	4		1	
40	11		1	
41	17		6	
42	19		3	
43	21	\$ 1,287,924	3	
44	20	1,234,661	6	
45	13		6	
46	16		2	
47	12		6	
48	8		4	
49	11		5	
50	14		4	
51	7			
52	8		5	
53	6			
54	3			
55	2			
56	2			
57	1		1	
58	1			
59	2			
60				
61	1			
62	2			
<b>Total</b>	230	\$ 14,108,288	63	\$ 4,030,805

TABLE VIII-F

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
YEARS OF CREDITED SERVICE AS OF JANUARY 1, 2013  
DEPUTY SHERIFFS**

(Compensation in cells with fewer than 20 records has been suppressed)

Years of Service	Men		Women	
	Number	Compensation	Number	Compensation
1				
2				
3			1	
4				
5	1			
6				
7				
8	1			
9	2			
10	4			
11	6		1	
12	8		3	
13	13		6	
14	19		4	
15	11		7	
16	21	\$ 1,307,208	4	
17	16		4	
18	22	1,382,433	6	
19	22	1,437,846	3	
20	17		5	
21	26	1,658,926	9	
22	11		2	
23	7			
24	6		3	
25	6		3	
26	2		1	
27	3		1	
28	4			
29	1			
30	1			
31				
32				
<b>Total</b>	230	\$ 14,108,288	63	\$ 4,030,805

TABLE VIII-G

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
AGE AS OF JANUARY 1, 2013  
ELECTED OFFICIALS**

(Compensation in cells with fewer than 20 records has been suppressed)

Age	Men		Women	
	Number	Compensation	Number	Compensation
26	1			
32			1	
37	4			
42			1	
46	2			
53	1			
55	1			
56	2			
57	1			
62	1			
63	1			
65			1	
66	2			
69	1			
<b>Total</b>	17		3	

TABLE VIII-H

**THE NUMBER AND ANNUAL SALARIES  
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY  
YEARS OF CREDITED SERVICE AS OF JANUARY 1, 2013  
ELECTED OFFICIALS**

(Compensation in cells with fewer than 20 records has been suppressed)

Years of Service	Men		Women	
	Number	Compensation	Number	Compensation
0	4			
1	2			
2				
3				
4	1			
5			1	
6				
7				
8			2	
9	1			
10	2			
11				
12	1			
13				
14	1			
15				
16				
17	1			
18				
19				
20	2			
21				
22				
23				
24				
25	1			
26	1			
27				
<b>Total</b>	17		3	

TABLE VIII-I

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO  
ALL MEMBERS RECEIVING BENEFITS  
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
13	1	\$ 4,344		
14	1	3,995		
16	1	3,997		
18	1	4,001		
19	1	5,540		
22			2	\$ 10,211
23	3	28,445		
24	1	2,779	1	6,705
30	1	21,304		
32	1	19,277	1	9,413
34			1	11,739
35	1	33,012	1	31,087
36			2	41,172
37	2	28,074	1	16,702
38	1	7,278		
39	2	11,396		
40			1	9,413
41	4	119,170	3	57,941
42	4	135,315		
43	5	129,376		
44	2	49,947		
45	3	105,312	2	33,375
46				
47	2	51,414	3	71,119
48	7	273,841	11	273,978
49	2	60,986	13	297,088
50	6	145,539	5	187,161
51	11	348,956	17	418,167
52	7	189,482	23	612,882
53	18	654,786	31	858,438
54	27	947,947	31	851,750
55	34	946,585	69	1,778,671
56	48	1,380,555	68	1,513,004
57	69	1,831,878	79	1,851,306
58	68	2,004,150	77	1,937,203
59	86	2,542,983	101	2,338,601
60	112	3,289,307	149	2,768,311
61	123	3,128,056	177	3,550,202
62	166	4,105,843	182	3,030,182
63	166	4,125,559	203	3,543,121
64	156	4,270,433	186	3,332,273
65	180	4,279,547	216	3,932,289

TABLE VIII-I

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO  
ALL MEMBERS RECEIVING BENEFITS  
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
66	145	\$ 3,967,429	191	\$ 3,966,165
67	119	2,770,198	135	2,478,874
68	106	2,562,878	137	2,524,040
69	99	2,563,375	145	2,503,583
70	107	2,952,720	139	2,370,865
71	77	1,842,936	118	2,054,219
72	85	2,181,500	102	1,696,532
73	84	2,012,543	118	1,965,064
74	69	1,628,969	121	2,125,635
75	79	1,831,037	116	1,704,516
76	79	2,009,370	113	1,829,174
77	57	1,482,680	125	2,119,954
78	64	1,710,215	107	1,725,674
79	57	1,543,630	99	1,464,439
80	71	1,537,802	113	1,746,546
81	74	1,745,697	99	1,652,456
82	53	1,100,546	134	1,861,133
83	44	834,887	123	1,639,425
84	53	1,073,078	104	1,433,665
85	56	1,179,364	126	1,592,323
86	32	681,401	97	1,209,008
87	40	790,612	82	953,813
88	35	617,564	77	928,869
89	24	495,269	76	836,478
90	26	421,288	66	672,351
91	22	359,583	52	482,527
92	15	200,253	41	389,615
93	10	109,436	34	261,983
94	6	86,382	42	325,264
95	5	84,205	15	80,641
96	3	50,394	14	127,739
97			10	77,763
98	1	5,924	11	92,261
99	1	15,435	2	5,310
100			3	15,025
101			1	563
102			1	5,839
103			1	8,437
<b>Total</b>	3,121	\$ 77,739,009	4,746	\$ 80,301,272

TABLE VIII-J

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO  
RETIRED MEMBERS  
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
42	1	\$ 42,876		
43	1	43,103		
44				
45				
46				
47			1	\$ 49,490
48	4	165,746	2	66,005
49	2	60,986	5	130,949
50	3	101,887	5	187,161
51	9	315,930	11	320,230
52	7	189,482	19	576,212
53	15	540,377	26	746,411
54	22	863,802	29	822,969
55	29	857,466	56	1,533,854
56	40	1,193,523	61	1,412,915
57	64	1,747,193	66	1,596,528
58	64	1,931,174	65	1,719,783
59	78	2,311,788	91	2,135,201
60	104	3,078,276	138	2,568,547
61	118	3,086,610	163	3,272,005
62	160	3,984,953	169	2,745,859
63	159	4,009,860	191	3,317,934
64	149	4,149,300	167	3,002,955
65	177	4,243,243	198	3,589,399
66	141	3,850,354	176	3,672,484
67	111	2,684,675	124	2,236,621
68	99	2,472,778	123	2,278,799
69	93	2,468,295	125	2,183,869
70	100	2,835,528	119	2,033,043
71	75	1,796,963	105	1,772,635
72	80	2,094,460	83	1,408,103
73	82	1,991,542	107	1,806,271
74	64	1,585,763	98	1,658,462
75	69	1,708,622	98	1,399,591
76	71	1,898,761	89	1,433,271
77	56	1,471,350	102	1,725,059
78	62	1,684,845	82	1,362,479
79	54	1,497,708	72	1,114,030
80	66	1,514,425	81	1,071,928
81	66	1,621,470	70	1,086,615
82	48	1,058,308	94	1,343,964
83	39	810,808	82	1,073,161
84	52	1,069,586	70	890,444

**TABLE VIII-J**  
**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO**  
**RETIRED MEMBERS**  
**AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
85	53	\$ 1,131,073	78	\$ 935,611
86	31	659,711	63	699,178
87	35	753,089	55	664,123
88	27	560,229	49	544,519
89	24	495,269	52	542,795
90	23	395,471	45	467,953
91	20	346,770	32	243,680
92	13	180,613	30	260,766
93	9	106,835	27	209,930
94	6	86,382	29	238,878
95	3	74,172	10	55,172
96	3	50,394	12	98,621
97			6	57,202
98	1	5,924	8	75,460
99	1	15,435	1	3,554
100			1	5,281
101				
102				
103			1	8,437
<b>Total</b>	2,883	\$ 73,895,183	3,862	\$ 66,456,396

TABLE VIII-K

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO  
BENEFICIARY MEMBERS  
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
13	1	\$ 4,344		
14	1	3,995		
16	1	3,997		
18	1	4,001		
19	1	5,540		
22			2	\$ 10,211
23	3	28,445		
24	1	2,779	1	6,705
30	1	21,304		
32			1	9,413
34			1	11,739
35			1	31,087
36			2	41,172
37	1	4,859	1	16,702
38	1	7,278		
39	2	11,396		
40			1	9,413
41	1	6,266	2	26,600
43	2	19,374		
44	1	6,138		
45			1	5,207
47			1	8,017
48			2	11,844
49			3	93,824
50	1	7,997		
51			1	25,434
52			3	18,713
53			2	35,331
54			2	28,781
55			5	71,907
56	2	57,934	2	22,659
57			10	184,608
58			9	165,281
59			8	158,825
60			9	165,478
61	1	980	8	121,029

TABLE VIII-K

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO  
BENEFICIARY MEMBERS  
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
62	3	\$ 55,780	10	\$ 228,525
63	3	17,831	8	148,370
64	4	50,027	15	273,403
65	2	4,382	14	279,423
66	1	23,191	14	284,357
67	3	37,124	9	183,615
68	3	16,346	8	168,377
69	4	42,612	17	265,704
70	4	48,808	14	243,568
71			9	203,625
72	2	30,855	16	234,043
73	1	3,851	10	138,964
74	4	18,256	22	452,922
75	7	62,899	16	266,998
76	5	45,692	22	372,428
77	1	11,330	22	373,163
78	1	17,226	20	301,420
79	1	9,995	24	301,940
80	5	23,377	27	591,773
81	5	40,187	26	530,276
82	5	42,238	38	476,442
83	5	24,079	36	502,013
84	1	3,492	31	502,748
85	3	48,291	47	643,718
86			33	496,804
87	5	37,523	26	277,693
88	7	47,036	27	365,497
89			23	278,480
90	3	25,817	20	195,800
91	2	12,813	20	238,847
92	2	19,640	11	128,849
93	1	2,601	7	52,053
94			13	86,386
95	2	10,033	5	25,469
96			1	23,234
97			4	20,561
98			3	16,801
99			1	1,756
100			2	9,744
101			1	563
102			1	5,839
<b>Total</b>	117	\$ 1,029,959	751	\$ 11,472,171

**TABLE VIII-L**  
**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO**  
**DISABLED MEMBERS**  
**AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
32	1	\$ 19,277		
33				
34				
35	1	33,012		
36				
37	1	23,215		
38				
39				
40				
41	3	112,904	1	\$ 31,341
42	3	92,439		
43	2	66,899		
44	1	43,809		
45	3	105,312	1	28,168
46				
47	2	51,414	1	13,612
48	3	108,095	7	196,129
49			5	72,315
50	2	35,655		
51	2	33,026	5	72,503
52			1	17,957
53	3	114,409	3	76,696
54	5	84,145		
55	5	89,119	8	172,910
56	6	129,098	5	77,430
57	5	84,685	3	70,170
58	4	72,976	3	52,139
59	8	231,195	2	44,575
60	8	211,031	2	34,286
61	4	40,466	6	157,168
62	3	65,110	3	55,798
63	4	97,868	4	76,817

**TABLE VIII-L**  
**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO**  
**DISABLED MEMBERS**  
**AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuities	Number	Annuities
64	3	\$ 71,106	4	\$ 55,915
65	1	31,922	4	63,467
66	3	93,884	1	9,324
67	5	48,399	2	58,638
68	4	73,754	6	76,864
69	2	52,468	3	54,010
70	3	68,384	6	94,254
71	2	45,973	4	77,959
72	3	56,185	3	54,386
73	1	17,150	1	19,829
74	1	24,950	1	14,251
75	3	59,516	2	37,927
76	3	64,917	2	23,475
77			1	21,732
78	1	8,144	5	61,775
79	2	35,927	3	48,469
80			5	82,845
81	3	84,040	3	35,565
82			2	40,727
83			5	64,251
84			3	40,473
85			1	12,994
86	1	21,690	1	13,026
87			1	11,997
88	1	10,299	1	18,853
89			1	15,203
90			1	8,598
91				
92				
93				
94				
95				
96				
97				
96			1	5,884
<b>Total</b>	121	\$ 2,813,867	133	\$ 2,372,705

**EXHIBIT IX****GLOSSARY**

<b>Accrued Liability</b>	The difference between (a) the present value of future plan benefits, and (b) the present value of future normal cost. It is the portion of the present value of future plan benefits attributable to service accrued as of the valuation date. Sometimes referred to as “actuarial accrued liability.”
<b>Accrued Service</b>	The service credited under the plan, which was rendered before the date of the actuarial valuation.
<b>Actual Funding Contribution</b>	The Actual Funding Contribution for a plan year is calculated using census and asset information as of the first day of the plan year, and includes Normal Cost, with interest to the end of the plan year, and a net amortization payment.
<b>Actuarial Assumptions</b>	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.
<b>Actuarial Cost Method</b>	A mathematical budgeting procedure for allocating the dollar amount of the “present value of future plan benefits” between the present value of future normal cost and the accrued liability. Sometimes referred to as the “actuarial funding method.”
<b>Actuarial Equivalent</b>	A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.
<b>Actuarial Value of Assets</b>	The value of current plan assets recognized for valuation purposes. Based on a smoothed market value that recognizes investment gains and losses over a period of ten years.
<b>Amortization</b>	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.

**EXHIBIT IX****GLOSSARY**

(Continued)

<b>Annual Required Contribution</b>	The Annual Required Contribution, or ARC, is the amount determined in accordance with Governmental Accounting Standards Board Statements Nos. 25 and 27.
<b>Budget Contribution</b>	The Budget Contribution for a year is based on census and asset information as of the first day of the PRIOR plan year, rolled forward to the next plan year based on all actuarial assumptions being met. For example, the Budget Contribution for 2012 is based on census and asset information as of January 1, 2010, rolled forward to January 1, 2011.
<b>Contribution Variance</b>	The difference between the Actual Contribution and the Budget Contribution for a plan year is referred to as the Contribution Variance. A Contribution Variance resulting from an overpayment is amortized over 5 years as a level dollar credit. A Contribution Variance resulting from an underpayment is amortized over 5 years as a level dollar charge.
<b>Experience Gain (Loss)</b>	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.
<b>Normal Cost</b>	The annual cost assumed, under the actuarial funding method, for current and subsequent plan years. Sometimes referred to as “current service cost.”
<b>Present Value</b>	The amount of funds presently required to provide a payment or series of payments in the future. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.
<b>Unfunded Accrued Liability</b>	The difference between the actuarial accrued liability and valuation assets.

June 12, 2013

Mr. Daniel Gopalan  
Fiscal Officer  
Employees' Retirement System of the  
County of Milwaukee  
901 N. 9<sup>th</sup> St.  
Milwaukee, WI 53233

Dear Dan:

We are enclosing 30 copies of our report on the annual actuarial valuation of the Employees' Retirement System of the County of Milwaukee as of January 1, 2013.

Please contact me with any questions.

Sincerely,



Larry Langer, ASA, EA, MAAA  
Principal, Consulting Actuary

LL:pl

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Enc.