

*OBRA 1990 Retirement System of the
County of Milwaukee*

Actuarial Valuation Report

January 1, 2013

June, 2013

DRAFT

June 4, 2013

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

Ladies and Gentlemen:

This report presents the results of the annual actuarial valuation of the OBRA 1990 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; and as required by the Retirement Code is the basis for the Budget Contribution for fiscal year 2013.

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 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. Effective with the 2013 valuation, the Board adopted a new mortality table and salary increase assumption to better reflect actual and expected experience. 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 recommendations of the last review were implemented with the January 1, 2013 valuation and are to remain in place until the next Experience Review. 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 14.

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.

The Retirement Board
Employees' Retirement System of the
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June 4, 2013
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Funding Adequacy

The 2012 valuation performed last year resulted in an Actual Funding Contribution of \$446,452 against which \$880,000 was actually contributed.

The Actual Funding Contribution for 2013, based on the results of this valuation, is \$388,625. It is expected that \$360,000 will be contributed during 2014 on behalf of the 2013 plan year. The deficit of \$28,625 will be amortized over five years.

Budget Contribution

The 2014 Budget Contribution, expected to be contributed in 2015, is \$440,000.

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 OBRA 1990 Retirement System of the County of Milwaukee. The principal valuation results include:

- The Actual Funding Contribution for fiscal year 2013, which is \$388,625.
- The Annual Required Contribution for fiscal year 2013 in accordance with GASB requirements, which is \$388,625.
- The Budget Contribution for fiscal year 2014, which is \$440,000.
- The total funded ratio of the plan determined as of January 1, 2013, which is 57.9% based on the accrued liability and the actuarial value of assets.
- The determination of the actuarial gain or loss as of January 1, 2013, which is a gain of \$70,229.
- 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

There were no legislative or administrative changes since the prior valuation.

The benefit provisions and contribution provisions are summarized in Table 15.

Actuarial Assumptions and Methods

Effective with the 2013 valuation, the Board adopted a new mortality table and salary increase assumption to better reflect actual and expected experience. The assumption changes resulted in an increase in the unfunded accrued liability in the amount of \$163,746. There were no other assumption or method changes since the prior valuation.

The actuarial assumptions and methods are outlined in Table 14.

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 and the Annual Required Contribution for GASB 25 disclosure for fiscal year 2013 are both \$388,625. The Budget Contribution for fiscal year 2014 is \$440,000.

Reasons for Change in Budget Contribution Calculated by the Actuary

The Budget Contribution calculated by the actuary increased from \$360,000 for fiscal year 2013 to \$440,000 for fiscal year 2014. A reconciliation of the increase of \$80,000 is shown in the following table:

Item	Amount
1. 2013 Budget Contribution	\$ 360,000
2. Increase / (Decrease) during 2012 due to	
a. Unanticipated liability loss (gain)	\$ (47,000)
b. Asset loss (gain) other than expected	(4,000)
c. 2012 reimbursable expenses other than assumed	(2,000)
d. 2012 contribution variance other than assumed	60,000
e. Full recognition of bases other than assumed	-
f. Increase due to assumption changes	22,000
g. Total	<u>29,000</u>
3. 2013 Actual Contribution (1 + 2)	\$ 389,000
4. Expected Increase / (Decrease) during 2013 due to	
a. Normal cost and existing amortization schedule	\$ 13,000
b. Phase-in of deferred asset (gains) losses	-
c. Amortization of 2013 reimbursable expenses	67,000
d. Expected contribution variance for 2013	7,000
e. Full recognition of certain amortization bases	(36,000)
f. Increase due to assumption changes	-
g. Total	<u>51,000</u>
5. 2014 Budget Contribution (3 + 4)	\$ 440,000

Summary of Principal Results

Summarized below are the principal financial results for the OBRA 1990 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
Demographics		
<u>Active Members</u>		
• Number	1,297	1,530
• Average Annual Pay	\$ 5,964	\$ 5,843
<u>Inactive Members</u>		
• Members Receiving Benefits		
• Number	38	28
• Average Annual Benefit Payment	\$ 1,614	\$ 1,324
• Members With Deferred Benefits		
• Number	1,945	1,944
• Average Annual Benefit Payment	\$ 361	\$ 304
Actual Funding Contribution		
	(Fiscal Year 2013)	(Fiscal Year 2012)
• Normal Cost with Interest	\$ 163,337	\$ 183,014
• Net Amortization Payments	<u>225,288</u>	<u>263,438</u>
• Total Contribution	\$ 388,625	\$ 446,452
Actuarial Funded Status		
• Accrued Liability	\$ 2,868,585	\$ 2,444,436
• Actuarial Value of Assets	<u>1,661,607</u>	<u>1,235,525</u>
• Unfunded Accrued Liability	\$ 1,206,978	\$ 1,208,911
• Funded Ratio	57.9 %	50.5 %

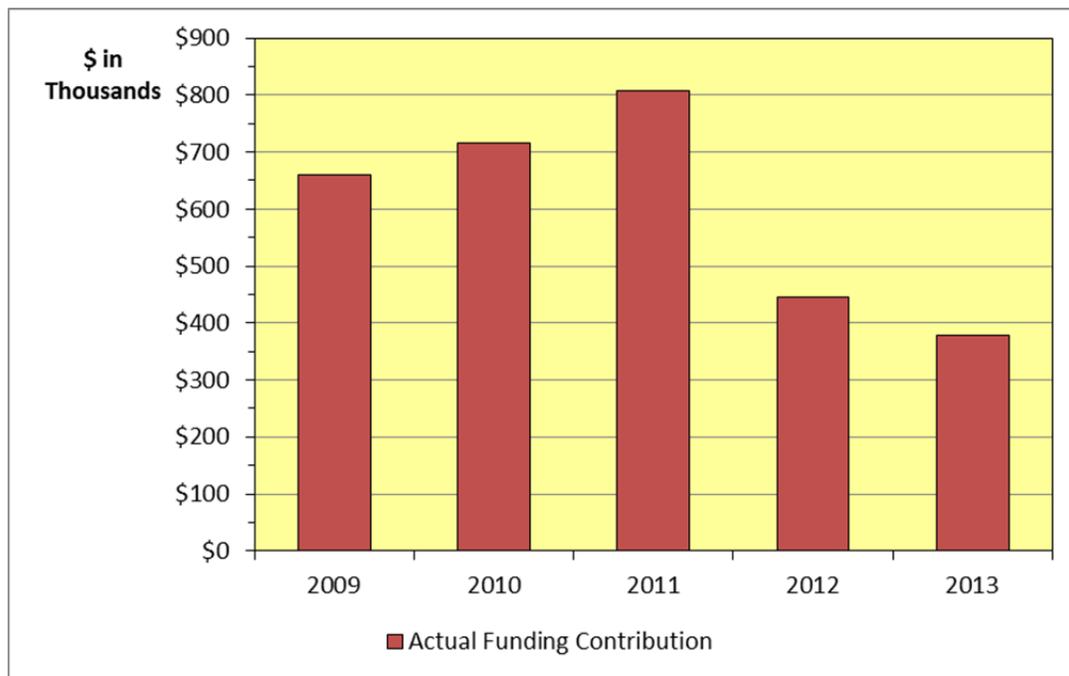
Five-Year History of Principal Financial Results

Five-Year History of Contribution Amounts

Valuation as of January 1	Actual Funding Contributions		
	Normal Cost with Interest	Net Amortization Payments	Total
2013	\$ 163,337	\$ 225,288	\$ 388,625
2012	183,014	263,438	446,452
2011	189,829	617,199	807,028
2010	135,517	580,922	716,439
2009	167,791	493,134	660,925

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 \$388,625 when taken together with any contributions payable by 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 (same as 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.

On this basis, the System's funded ratio is 57.9% as of January 1, 2013. This funded ratio is based on an actuarial value of assets of \$1,661,607 and an accrued liability of \$2,868,585.

Reasons for Change in the Total Funded Ratio

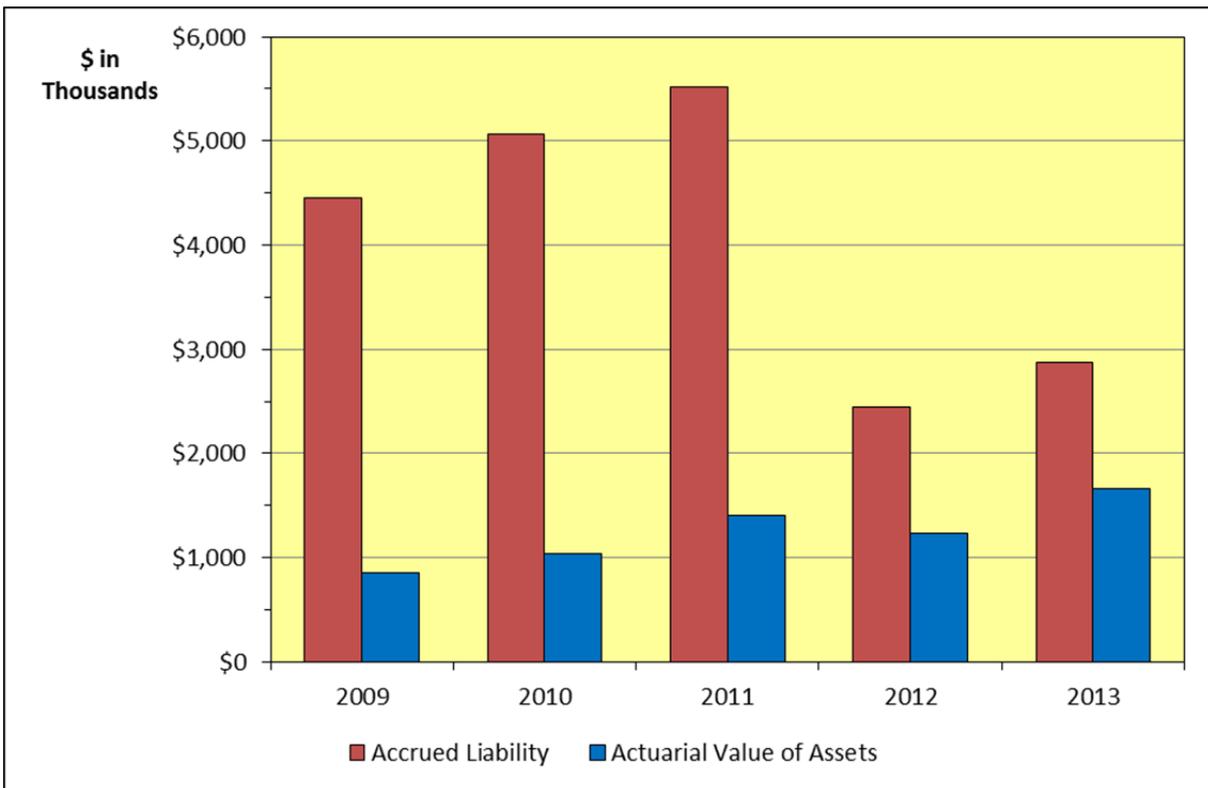
The total funded ratio increased from 50.5% as of January 1, 2012 to 57.9% as of January 1, 2013. The increase is primarily due to experience gains and losses and contributions made to the fund.

Five-Year History of Total Funded Ratio

Valuation as of January 1	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
2013	\$ 2,868,585	\$ 1,661,607	\$ 1,206,978	57.9%
2012	2,444,436	1,235,525	1,208,911	50.5
2011	5,519,524	1,402,225	3,617,299	25.4
2010	5,068,513	1,038,607	4,029,906	20.5
2009	4,451,626	859,923	3,591,703	19.3

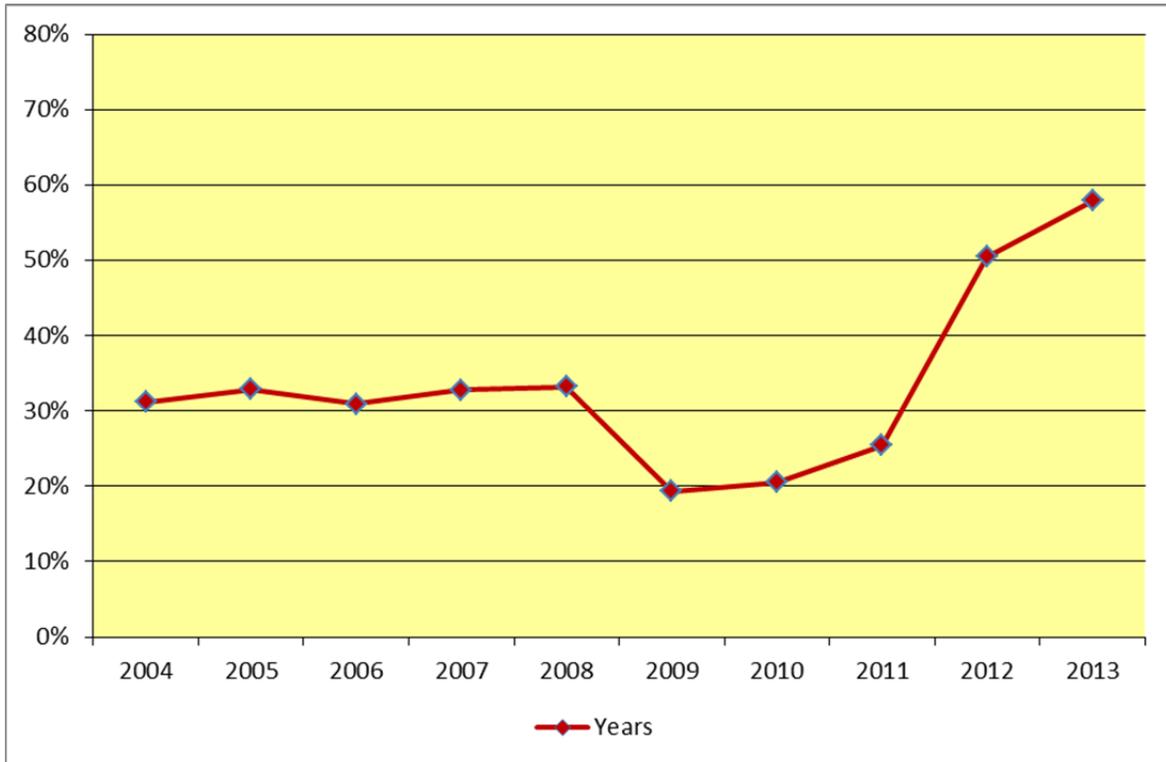
The following chart shows a five-year history of the accrued liability and the actuarial value of assets:

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 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 57.9% as of January 1, 2013. This funded ratio is based on an actuarial value of assets of \$1,661,607 and an accrued liability of \$2,868,585.

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. The ARC and the actual employer percentage contributed for the five fiscal years ending December 31, 2013 are shown in Table 13.

Rate of Return

The estimated investment return of the 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 the same as market value for purposes of this valuation. 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 Assets and Returns

As of 12/31	Asset Values		Rates of Return		
	Market	Actuarial	Market	Actuarial	Assumed
2012	\$ 1,661,607	\$ 1,661,607	12.6%	12.6%	8.0%
2011	1,235,525	1,235,525	(8.2%)	(8.2%)	8.0%
2010	1,402,225	1,402,225	9.7%	9.7%	8.0%
2009	1,038,607	1,038,607	20.5%	20.5%	8.0%
2008	859,923	859,923	(23.2%)	(23.2%)	8.0%

Compound Rate of Return (five years): 1.0% 1.0%

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

Item	January 1, 2013	January 1, 2012
Participant Data		
1. Number of Participants		
a) Active Participants	1,297	1,530
b) Participants with Deferred Benefits	1,945	1,944
c) Participants Receiving Benefits	38	28
d) Total	3,280	3,502
2. Total Compensation	\$ 7,735,644	\$ 8,939,076
3. Annual Annuities	\$ 61,316	\$ 37,061
Valuation Results		
4. Actuarial Accrued Liability		
a) Active Participants	\$ 929,472	\$ 1,033,549
b) Participants with Deferred Benefits	1,382,614	1,104,472
c) Participants Receiving Benefits	556,499	306,415
d) Total	\$ 2,868,585	\$ 2,444,436
5. Actuarial Value of Assets	\$ 1,661,607	\$ 1,235,525
6. Funded Status: (5 / 4)	57.9 %	50.5 %
7. Unfunded Actuarial Accrued Liability: (4 - 5)	\$ 1,206,978	\$ 1,208,911
8. Normal Cost for the Plan Year	\$ 151,238	\$ 169,457
Employer Actual Funding Contribution and Annual Required Contribution for Fiscal 2013		
9. Actual Funding Contribution Calculated by Actuary		
a) Normal Cost with Interest	\$ 163,337	\$ 183,014
b) Net Annual Amortization Payments	225,288	263,438
c) Total Contribution: ((a + b), not less than zero)	\$ 388,625	\$ 446,452

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	\$ 778,347	\$ 829,179
Withdrawal Benefits	<u>151,125</u>	<u>204,370</u>
Total Active	929,472	1,033,549
b. Participants with Deferred Benefits	1,382,614	1,104,472
c. Participants Receiving Benefits	<u>556,499</u>	<u>306,415</u>
d. Total All Participants	\$ 2,868,585	\$ 2,444,436
2. Actuarial Value of Assets	<u>1,661,607</u>	<u>1,235,525</u>
3. Unfunded Actuarial Accrued Liability (1d - 2)	\$ 1,206,978	\$ 1,208,911
4. Funded Status: (2 / 1d)	57.9%	50.5%

Both valuations were based on the same methods and plan provisions. The mortality and salary increase assumptions were updated in 2013.

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

Item	December 31, 2012	December 31, 2011
1. Actuarial Accrued Liability at the Beginning of the Year	\$ 2,444,436	\$ 5,519,524
2. Increases/(Decreases) During the Year		
a. Normal Cost for the Year	169,457	175,768
b. Member Contributions	-	-
c. Benefit Payments and Refunds	(99,116)	(1,400,202)
d. Assumed Interest to End of Year*	205,223	400,692
e. Plan and Assumption Changes	163,746	-
f. Total: (a + b + c + d + e)	439,310	(823,742)
3. Expected Liability at the End of the Year: (1 + 2)	2,883,746	4,695,782
4. Actuarial Accrued Liability at the End of the Year	2,868,585	2,444,436
5. Liability Gain/(Loss): (3 - 4)	\$ 15,161	\$ 2,251,346
6. Actuarial Value of Assets at the Beginning of the Year	\$ 1,235,525	\$ 1,402,225
7. Increases/(Decreases) During the Year		
a. County Contributions	880,000	2,022,000
b. Member Contributions	-	-
c. Benefit Payments and Refunds	(99,116)	(1,400,202)
d. Administrative Expenses	(504,824)	(732,297)
e. Assumed Interest to End of Year*	94,954	57,247
f. Total: (a + b + c + d + e)	371,014	(53,252)
8. Expected Actuarial Assets at the End of the Year (6 + 7)	1,606,539	1,348,973
9. Actuarial Value of Assets at the End of the Year	1,661,607	1,235,525
10. Actuarial Asset Gain/(Loss): (9 - 8)	\$ 55,068	\$ (113,448)
11. Total Gain/(Loss): (5 + 10)	\$ 70,229	\$ 2,137,898

* 8.00% per annum interest rate assumed for 2012 and 2011 plan years

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	
1. Charges							
Expense	1/1/2004	10	1	2013	\$ 178,462	\$ 24,716	\$ 26,693
Reestablished unfunded	1/1/2004	30	21	2033	1,009,474	1,141,394	90,524
Expense	1/1/2005	10	2	2014	238,648	63,530	35,628
Loss	1/1/2005	30	22	2034	19,357	21,510	1,661
Expense	1/1/2006	10	3	2015	276,403	106,158	41,192
Assumption Change	1/1/2006	30	23	2035	318,945	347,699	26,188
Expense	1/1/2007	10	4	2016	307,150	151,614	45,774
Assumption Change	1/1/2007	30	24	2036	67,011	71,646	5,273
Expense	1/1/2008	10	5	2017	449,781	267,632	67,031
Expense	1/1/2009	10	6	2018	590,678	406,946	88,028
Variance	1/1/2009	5	1	2013	35,813	8,304	8,968
Loss	1/1/2009	30	26	2038	406,803	427,474	30,170
Expense	1/1/2010	10	7	2019	627,953	487,228	93,584
Loss	1/1/2010	30	27	2039	16,048	16,685	1,156
Expense	1/1/2011	10	8	2020	519,351	444,781	77,399
Expense	1/1/2012	10	9	2021	732,297	681,747	109,134
Expense	1/1/2013	10	10	2022	504,824	504,824	75,234
Assumption Change	1/1/2013	30	30	2042	163,746	163,746	10,790
Total Charges						\$ 5,337,634	\$ 834,427
2. Credits							
Gain	1/1/2006	30	23	2035	\$ 16,036	\$ 17,482	\$ 1,316
Gain	1/1/2007	30	24	2036	134,681	143,997	10,598
Gain	1/1/2008	30	25	2037	129,979	137,866	9,929
Variance	1/1/2011	5	3	2015	69,561	44,898	17,422
Gain	1/1/2011	30	28	2040	103,867	106,710	7,261
Variance	1/1/2012	5	4	2016	1,214,972	1,007,872	304,298
Gain	1/1/2012	30	29	2041	2,137,898	2,168,054	145,102
Variance	1/1/2013	5	5	2017	433,548	433,548	108,585
Gain	1/1/2013	30	30	2042	70,229	70,229	4,628
Total						\$ 4,130,656	\$ 609,139
3. Net Amount (1 - 2)						\$ 1,206,978	\$ 225,288

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% 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.

TABLE 5

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

Item	January 1, 2013	January 1, 2012
1. Unit Credit Normal Cost		
a. Active Participants		
Retirement Benefits	\$ 105,269	\$ 118,863
Withdrawal Benefits	45,969	50,594
Total	<u>151,238</u>	<u>169,457</u>
2. Interest to the End of the Plan Year	12,099	13,557
3. Normal Cost for the Plan Year: (1 + 2)	163,337	183,014

TABLE 6

**CONTRIBUTION REQUIREMENTS – END-OF-YEAR BASIS
ACTUAL AND BUDGET AMOUNTS FOR CURRENT PLAN YEAR
BUDGET AMOUNT FOR NEXT PLAN YEAR**

Item	2014 Budget	2013	
		Actual	Budget
1. Normal Cost with Interest	\$ 177,000	\$ 163,337	\$ 198,000
2. Net Annual Amortizations	<u>263,000</u>	<u>225,288</u>	<u>162,000</u>
3. Total Contribution ((1 + 2), not less than zero)	\$ 440,000	\$ 388,625	\$ 360,000

The budgeted contributions shown above for the 2014 and 2013 plan years were estimated based on participant data as of January 1, 2013, and January 1, 2012, respectively.

The actual contribution for the 2013 plan year was determined based on participant data as of January 1, 2013, and satisfies the pension accounting requirements of GASB Statement Nos. 25 and 27.

There have been no changes in methodology and plan provisions since the prior valuation. The mortality and salary increase assumptions were updated in 2013.

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

Asset Category	December 31, 2012	December 31, 2011
1. Cash and Cash Equivalents	\$ 682	\$ 60,700
2. Investments at Fair Value	1,660,925	(847,175)
3. Contributions Receivable	-	2,022,000
4. Net Assets Available for Benefits (1 + 2 + 3)	\$ 1,661,607	\$ 1,235,525

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	\$ 1,235,525	\$ 1,402,225
2. Contributions for Plan Year		
a. County	\$ 880,000	\$ 2,022,000
b. Member	-	-
c. Total	<u>880,000</u>	<u>2,022,000</u>
3. Disbursements for Plan Year		
a. Benefit payments and refunds	\$ 99,116	\$ 1,400,202
b. Administrative expenses payable to County	<u>504,824</u>	<u>732,297</u>
c. Total	603,940	2,132,499
4. Market Value of Assets at the End of the Year	1,661,607	1,235,525
5. Net Investment Income* (4 - 1 - 2c + 3c)	150,022	(56,201)
6. Expected Net Investment Income (8.00% per annum)	94,954	57,247
7. Gain (Loss) on Market Value of Assets (5 - 6)	55,068	(113,448)
8. Estimated Rate of Return	12.6%	(8.2%)

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

TABLE 9**ACTUARIAL VALUE OF PLAN ASSETS**

Item	January 1, 2013	January 1, 2012
1. Actuarial Value of Assets	\$ 1,661,607	\$ 1,235,525

The actuarial value of plan assets is equal to the market value of plan assets.

TABLE 10

**EMPLOYER 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)				\$ 446,452
2.	Total Employer Contributions Made, End-of-Year Basis				
	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%	880,000	-	880,000
	4/15/2013	0.0%	-	-	-
	5/15/2013	0.0%	-	-	-
	6/15/2013	0.0%	-	-	-
	Total		\$ 880,000	\$ -	\$ 880,000
3.	Variance from Funding Calculation Amount** (2 - 1)				\$ 433,548

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

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

TABLE 11**GASB NOS. 25 AND 27 DISCLOSURE INFORMATION
FOR CURRENT AND PRIOR PLAN YEAR****Equivalent Single Amortization Period**

Item	January 1, 2013	January 1, 2012
1. Covered Payroll	\$ 7,735,644	\$ 8,939,076
2. Unfunded Amount	1,206,978	1,208,911
3. Amortization Payment	225,288	263,438
4. Payment as a Level Percentage of Payroll (3 / 1)	2.91%	2.95%
5. Weighted Average Amortization Period (2 / 3)	5.36	4.59
6. Equivalent Single Amortization Period (Nearest Whole Year)	7	5

Net Pension Obligation

Item	January 1, 2013	January 1, 2012
1. Annual Required Contribution (ARC)	\$ 388,625	\$ 446,452
2. Interest on Net Pension Obligation	(117,910)	(100,328)
3. Adjustment to ARC	<u>369,143</u>	<u>314,098</u>
4. Annual Pension Cost (APC)	639,858	660,222
5. Contributions made*	<u>(360,000)</u>	<u>(880,000)</u>
6. Increase (Decrease) in Net Pension Obligation	279,858	(219,778)
7. Net Pension Obligation at Beginning of Year	<u>(1,473,880)</u>	<u>(1,254,102)</u>
8. Net Pension Obligation at End of Year**	(1,194,022)	(1,473,880)
9. Percent of APC Contributed	56.26%	133.29%

* 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 12**REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS**

(\$ Amounts in Thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Funded Ratio (a/b)	Unfunded Actuarial Accrued Liability (b - a)	Covered Payroll (c)	Unfunded as a Percentage of Covered Payroll [(b - a)/c]
12/31/2012	\$ 1,662	\$ 2,869	57.9%	\$ 1,207	\$ 7,736	15.6%
12/31/2011	1,236	2,444	50.5%	1,209	8,939	13.5%
12/31/2010	1,402	5,520	25.4%	4,117	8,936	46.1%
12/31/2009	1,039	5,069	20.5%	4,030	6,901	58.4%
12/31/2008	860	4,452	19.3%	3,592	8,498	42.3%

TABLE 13

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

Fiscal Year Ended December 31	Annual Required Contribution	Percentage Contributed
2013	\$ 388,625	92.6 *
2012	446,452	197.1
2011	807,028	250.5
2010	716,439	109.7
2009	660,925	100.0

* 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.

Additional information as of the latest actuarial valuation follows:

Valuation Date:	January 1, 2013
Actuarial Cost Method:	Unit Credit
Amortization Method:	
- Administrative Expense	Level dollar closed
- Contribution Variance	Level dollar closed
- All other	Level percent of payroll closed
Remaining Amortization Period:	
- Administrative Expense	10 years
- Contribution Variance	5 years
- All other	30 years
Asset Valuation Method:	Market
Actuarial Assumptions:	
- Investment Rate of Return	8.00%
- Payroll Growth	3.00%

TABLE 14**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.

Salary Increase: 4.50% per annum, compounded annually.

Payroll Growth: 3% per annum.

Separation From Service: Retirement age is assumed to be age 65. Illustrative rates of assumed separation from service (mortality and turnover) are shown in the following tables.

Annual Rates per 100 Participants

Attained Age	Mortality	
	Males	Females
45	0.13	0.11
50	0.19	0.19
55	0.31	0.38
60	0.59	0.76
65	1.11	1.26
70	1.86	1.96
75	2.87	3.40
80	5.03	5.86
85	8.61	10.72

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.

TABLE 14

DESCRIPTION OF ACTUARIAL ASSUMPTIONS AND METHODS
(Continued)

Annual Rates per 100 Participants

Withdrawal						
Attained Age	Select Rates by Year of Employment + Ultimate					
	0	1	2	3	4	Ult.
20	33.75	31.50	28.50	24.00	19.05	15.00
25	31.35	29.46	26.88	22.86	18.54	14.25
30	27.30	25.47	22.92	18.99	15.36	12.00
35	22.35	20.64	18.03	14.01	10.17	6.00
40	17.85	16.26	13.80	10.26	7.23	3.90
45	17.25	14.85	11.94	8.43	5.37	2.52
50	16.50	13.38	10.98	7.89	4.47	1.07
55	14.85	12.45	9.78	6.93	3.63	0.23

TABLE 14**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 Unit Credit 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.

Asset Valuation Method: The actuarial asset value is the market value of assets plus any receivable contributions.

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 15**SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS****MEMBERSHIP**

Any person employed by the County for whom the County is not obligated to collect and withhold FICA taxes. However, such persons shall not include: 1) an employee hired to relieve him from unemployment; 2) an employee of a hospital, home, or institution where he is an inmate; 3) an employees who is a temporary employee to handle fire, storm, snow, earthquake or similar emergencies; 4) an employee paid on a fee basis as self-employed; or 5) an employee who is a member of a collective bargaining unit covered by an agreement which does not provide for his inclusion.

VESTING SERVICE

One year of service is credited on and after January 1, 1992 for each plan year during which the employee is employed at any time. However, the employee shall not receive credit for any plan year in which the County is obligated to collect and withhold FICA taxes. If, during such plan year, FICA taxes are withheld for only a portion of the year, the employee shall receive a pro rata credit for the portion of the year worked when no FICA taxes were withheld.

BENEFIT SERVICE

Same as vesting service.

EARNINGS

Earnable compensation shall include the compensation earned during the period for which no FICA tax was withheld, exclusive of any amounts reimbursed for moving expenses. However, such compensation shall be limited to the Social Security taxable wage base for the plan year.

Average compensation is the average of the total earnings accumulated during the plan years of employment with the County, with the exception of years prior to January 1, 1992.

TABLE 15**SUMMARY OF BENEFIT AND CONTRIBUTION PROVISIONS**
(Continued)**BENEFITS**Normal Retirement

Eligibility	Age 65.
Amount	2% of the member's average compensation multiplied by years of service (not in excess of 30).

Deferred Vested Benefit

Upon termination of employment, a member is eligible for a deferred vested pension commencing at age 65. Such benefit shall be calculated the same as for normal retirement, considering average compensation and service at termination.

TABLE 16

**SUMMARY OF MEMBERSHIP DATA
AS OF JANUARY 1, 2013**

Item	Total
Number of Participants	1,297
Average Annual Salaries *	\$ 5,964
Average Age	27.0
Average Service	3.5

* The salaries shown in the table above represent total annual pay increased by the salary assumption.

Inactive Participants

Item	Number	Annual Annuities	Average Annuities
Participants with Deferred Benefits	1,945	\$ 702,174	\$ 361
Participants receiving benefits	<u>38</u>	<u>61,316</u>	<u>1,614</u>
Total	1,983	\$ 763,490	\$ 385

EXHIBIT I**ACTIVE MEMBERSHIP DATA****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+	
Under 25	749 \$3,524	122 \$7,275								865 \$4,049
25-29	75 \$10,921	55 \$8,685	19 -							149 \$10,629
30-34	28 \$6,206	16 -	20 -	2 -						66 \$9,215
35-39	16 -	6 -	3 -	3 -	1 -					29 \$10,364
40-44	19 -	1 -	1 -							21 \$8,532
45-49	18 -	3 -	1 -	5 -	1 -					28 \$6,897
50-54	28 \$ 7,240	9 -	3 -	4 -	2 -					46 \$9,454
55-59	16 -	7 -	3 -	1 -						27 \$8,346
60-64	19 -	6 -								25 \$7,125
Over 64	34 \$ 4,316			1 -						35 \$ 4,710
Total	1,002 \$4,524	225 \$8,588	50 \$12,280	16 -	4 -					1,297 \$5,964

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

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

Valuation as of January 1	Number of Active Participants	Percentage Change in Membership	Total Annual Payroll	Percentage Change in Payroll
2013	1,297	(15.23%)	\$ 7,735,644	(13.46%)
2012	1,530	(0.65%)	\$ 8,939,076	0.03%
2011	1,540	31.29%	8,936,147	29.49%
2010	1,173	(32.04%)	6,901,021	(18.80%)
2009	1,726	23.20%	8,498,484	2.59%

Retired Participants

Valuation as of January 1	Number on roll	Additions	Deletions	Percentage Change in Membership	Annual Annuities	Percentage Change in Annuities
2013	38	10	-	35.71%	\$ 61,316	65.45%
2012	28	26	-	1300.00%	37,061	863.62%
2011	2	-	-	0.00%	3,846	0.00%
2010	2	-	-	0.00%	3,846	0.00%
2009	2	1	-		3,846	

EXHIBIT III

DETAILED TABULATIONS OF THE DATA

TABLE III-A

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

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

Age	Men		Women	
	Number	Compensation	Number	Compensation
16			1	
17	41	\$ 124,177	33	\$ 80,887
18	68	221,034	67	205,054
19	81	279,239	73	260,336
20	76	327,422	58	233,079
21	66	379,759	51	216,411
22	75	422,695	44	289,863
23	41	295,510	34	151,461
24	30	287,522	26	130,054
25	25	210,279	14	
26	24	274,066	10	
27	18		16	
28	11		9	
29	11		11	
30	11		10	
31	6		5	
32	7		5	
33	7		4	
34	7		4	
35	3		1	
36	4		4	
37	3		3	
38	5			
39	3		3	
40	1			
41	2		1	
42	4		1	
43	5		1	
44	5		1	
45	3		2	
46	2		1	
47	6		1	
48	4		4	
49	5			
50	10		3	
51	3		6	
52	5		3	
53	6		4	
54	7		2	
55	3			
56	6			

TABLE III-A

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

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

Age	Men		Women	
	Number	Compensation	Number	Compensation
57	5		1	
58	9		1	
59	3		2	
60	4		3	
61	4		1	
62	2			
63	8			
64	2		1	
65	3		1	
66	2		2	
67	2		1	
68	1			
69	2			
70	5		1	
71	2			
72	2		3	
73	2			
77	1		1	
78	2			
82	1			
84	1			
Total	763	\$ 4,725,813	534	\$ 3,009,831

TABLE III-B

**THE NUMBER AND ANNUAL SALARIES
OF MEMBERS IN ACTIVE SERVICE DISTRIBUTED BY
YEARS OF CREDITED SERVICE AS OF JANUARY 1, 2013**
(Compensation in cells with fewer than 20 records has been suppressed)

Years of Service	Men		Women	
	Number	Compensation	Number	Compensation
0	95	\$ 294,807	81	\$ 204,484
1	230	916,609	143	539,242
2	116	686,507	111	688,194
3	72	421,312	46	311,965
4	67	470,987	41	219,681
5	66	531,982	29	190,962
6	22	230,130	18	
7	26	217,429	19	
8	21	264,868	8	
9	10		7	
10	13		8	
11	6		3	
12	2		3	
13	4		8	
14	2		1	
15	3		3	
16	1			
17	1		1	
18	1		2	
19	2		2	
20	3			
21			1	
Total	763	\$ 4,725,813	534	\$ 3,009,831

TABLE III-C

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO
PARTICIPANTS WITH DEFERRED BENEFITS
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuity	Number	Annuity
19	3	\$ 99	3	\$ 97
20	20	1,281	19	535
21	99	4,353	81	4,334
22	100	6,107	87	5,686
23	108	11,131	96	8,345
24	102	12,930	74	10,073
25	77	12,572	66	10,389
26	83	23,816	48	10,700
27	54	22,245	48	14,141
28	42	19,182	35	16,538
29	36	19,853	37	21,752
30	30	15,161	27	12,502
31	26	23,327	16	10,441
32	24	21,282	24	22,910
33	21	19,466	12	7,937
34	14	8,250	8	4,992
35	11	13,158	11	4,576
36	10	7,490	9	6,488
37	14	13,997	9	6,051
38	11	10,239	5	2,370
39	11	9,880	8	5,400
40	9	7,873	3	1,145
41	6	2,171	4	2,906
42	11	12,474	9	4,187
43	11	5,383	5	3,432
44	14	5,299	4	1,480
45	9	8,146	6	2,455
46	7	5,874	7	2,970
47	7	2,885	3	277
48	7	5,163	2	482
49	11	9,069	10	4,045
50	7	7,174	6	2,403
51	9	15,730	6	2,048
52	4	921	6	2,597
53	8	4,165	4	4,422
54	9	8,954	6	1,535
55	9	5,434	1	50
56	6	3,756	6	9,765
57	5	2,363	8	3,884
58	8	8,944	7	4,644

TABLE III-C

**THE NUMBER AND ANNUAL BENEFITS PAYABLE TO
PARTICIPANTS WITH DEFERRED BENEFITS
AS OF JANUARY 1, 2013**

Age	Men		Women	
	Number	Annuity	Number	Annuity
59	10	\$ 7,681	3	\$ 281
60	7	7,832	2	603
61	7	7,378	6	2,686
62	5	5,097	2	2,289
63	3	2,597	2	505
64	9	9,744	2	7,398
65	4	6,635	3	2,697
68				
69	1	170		
70				
Total	1,099	\$ 444,731	846	\$ 257,443

TABLE III-D

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

Age	Men		Women	
	Number	Annuity	Number	Annuity
65	4	\$ 8,134	1	\$ 1,301
66	7	14,337	3	4,821
67	4	5,763	2	3,273
68	4	6,438	2	3,392
69	2	2,046	1	690
70			2	2,679
71	2	3,616	1	967
72	1	1,585		
73	1	903		
74				
75				
76				
77				
78	1	1,371		
79				
80				
Total	26	\$ 44,192	12	\$ 17,124

EXHIBIT IV**GLOSSARY**

Accrued Liability	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.”
Accrued Service	The service credited under the plan which was rendered before the date of the actuarial valuation.
Actual Funding Contribution	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.
Actuarial Assumptions	Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the “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.”
Actuarial Equivalent	A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.
Actuarial Value of Assets	The value of current plan assets recognized for valuation purposes. Based on market value.
Amortization	Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

EXHIBIT IV**GLOSSARY**

(Continued)

Annual Required Contribution	The Annual Required Contribution, or ARC, is the amount determined in accordance with Governmental Accounting Standards Board Statements Nos. 25 and 27.
Budget Contribution	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, 2011, rolled forward to January 1, 2012.
Contribution Variance	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.
Experience Gain (Loss)	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.
Normal Cost	The annual cost assumed, under the actuarial funding method, for current and subsequent plan years. Sometimes referred to as “current service cost.”
Present Value	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.
Unfunded Accrued Liability	The difference between the actuarial accrued liability and valuation assets.

June 4, 2013

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

Dear Dan:

We are enclosing 30 copies of our report on the annual actuarial valuation of the OBRA 1990 Retirement System of the County of Milwaukee as of January 1, 2013.

Please call me with any questions.

Sincerely,



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

LL:pl

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Enc.