

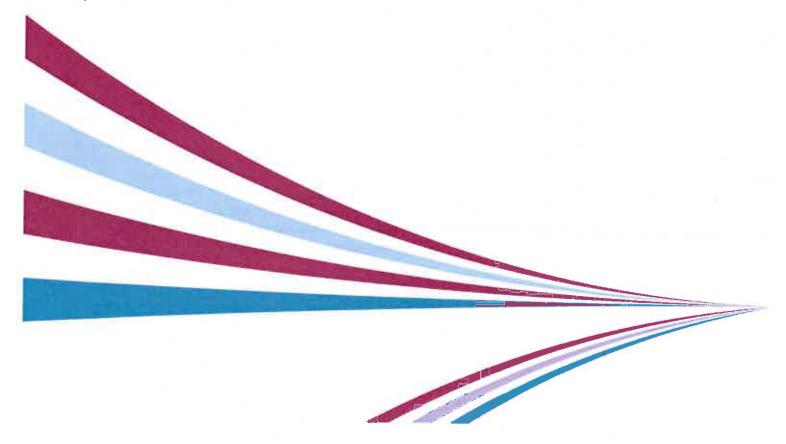
OBRA 1990 Retirement System of the County of Milwaukee

Actuarial Valuation Report

Plan Year

January 1, 2015

May 2015



May 2015

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

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Certification of Actuarial Valuation

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, 2015. The valuation takes into account all of the promised benefits to which members are entitled as of January 1, 2015; and as required by the Retirement Code is the basis for the Budget Contribution for fiscal year 2015.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, changes expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions, applicable law or regulations. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

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. 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 17.

Assets and Membership Data

The Retirement System reported the individual data for members of the System as of the valuation date to the actuary. In reviewing the data, it appears that significant changes were made in correcting previous data elements from past years. This had the end result of drastically decreasing the active population and increasing the deferred vested inactive population. The accuracy and validity of the valuation results is dependent on the accuracy of the membership data.

For 2015 we received the data in multiple files. Missing information was updated with either supplemental information sent or by using assumptions based on the current and prior year's data.



The Retirement Board
Employees' Retirement System of the County of Milwaukee

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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 2014 valuation performed last year resulted in an Actual Funding Contribution of \$373,500 against which \$440,000 was actually contributed.

The Actual Funding Contribution for 2015, based on the results of this valuation, is \$363,997. It is expected that \$440,000 will be contributed during 2016 on behalf of the 2015 plan year. The surplus of \$76,003 will be amortized over five years.

Budget Contribution

The 2016 Budget Contribution, expected to be contributed in 2017, is \$879,000.

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.

Qualifications

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

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Emily Urbaniak Senior Consultant, Retirement

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Executive Summary

This report presents the actuarial valuation as of January 1, 2015 for the OBRA 1990 Retirement System of the County of Milwaukee. The principal valuation results include:

- The Actual Funding Contribution for fiscal year 2015, which is \$363,997.
- The Budget Contribution for fiscal year 2016, which is \$879,000.
- The total funded ratio of the plan determined as of January 1, 2015, which is 52.9% based on the accrued liability and the accuarial value of assets.
- The determination of the actuarial gain or loss as of January 1, 2015, which is a gain of \$399,405.

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 18.

Actuarial Assumptions and Methods

No actuarial assumptions or methods have changed for 2015 since the previous valuation. In 2016, we are anticipating a plan change that will add the full amount of administrative expenses payable to the County to the annual contribution, rather than the current method of amortizing this amount over ten years.

The actuarial assumptions and methods are outlined in Table 17.



Contribution Amounts

The results of the valuation as of January 1, 2015 determine the Actual Funding Contribution for fiscal year 2015 and the Budget Contribution for fiscal year 2016. The Actual Funding Contribution for fiscal year 2015 is \$363,997. The Budget Contribution for fiscal year 2016 is \$879,000.

Reasons for Change in Budget Contribution Calculated by the Actuary

The Budget Contribution calculated by the actuary increased from \$402,000 for fiscal year 2015 to \$879,000 for fiscal year 2016. A reconciliation of the increase of \$515,000 is shown in the following table:

Item	Amount				
 2015 Budget Contribution Increase / (Decrease) during 2014 due to Unanticipated liability loss (gain) Asset loss (gain) other than expected 2014 reimbursable expenses other than assumed 2014 contribution variance other than assumed Full recognition of bases other than assumed Increase due to assumption changes Total 	\$ 402,000 \$ (15,000) (16,000) (7,000) - - (38,000)				
 2015 Actual Contribution (1 + 2) Expected Increase / (Decrease) during 2015 due to Normal cost and existing amortization schedule Phase-in of deferred asset (gains) losses 2015 reimbursable expenses Expected contribution variance for 2015 Full recognition of certain amortization bases Increase due to assumption changes Total 2016 Budget Contribution (3 + 4) 	\$ 7,000 \$ 7,000 551,000 (19,000) (24,000) 				



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, 2015. Comparable results from the January 1, 2014 valuation are also shown.

Item	Jan	uary 1, 2015	Jar	nuary 1, 2014
Demographics				<u> </u>
Active Members				
Number		394		326
Average Annual Pay	\$	9,962	\$	10,669
Inactive Members	1			
 Members Receiving Benefits 				
 Number 		47		39
 Average Annual Benefit Payment 	\$	1,810	\$	1,704
 Members With Deferred Benefits 	ļ			
 Number 		4,783		4,434
 Average Annual Benefit Payment 	\$	288	\$	315
Actual Funding Contribution	(Fis	cai Year 2015)	(Fis	cal Year 2014)
 Normal Cost with Interest 	\$	92,281	\$	88,705
 Net Amortization Payments 	 	271,716		284,795
 Total Contribution 	\$	363,997	\$	373,500
Actuarial Funded Status				
 Accrued Liability 	\$	3,483,712	\$	3,410,663
 Actuarial Value of Assets 		1,842,376		1,602,994
 Unfunded Accrued Liability 	\$	1,641,336	\$	1,807,669
Funded Ratio	1 1	52.9 %		47.0 %



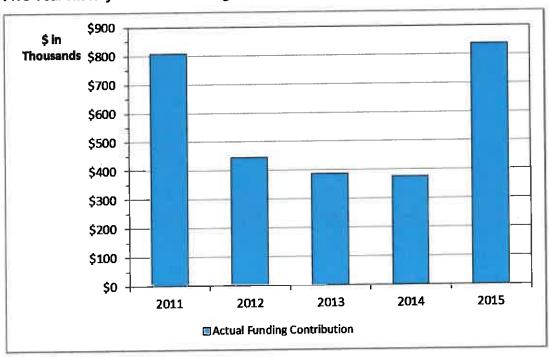
Five-Year History of Principal Financial Results

Five-Year History of Contribution Amounts

	Actual Funding Contributions								
Valuation as of January 1	Normal Cost with Interest	Net Amortization Payments	Total						
2015	\$ 92,281	\$ 271,716	\$ 363,997						
2014	88,705	284,795	373,500						
2013	163,337	225,288	388,625						
2012	183,014	263,438	446,452						
2011	189,829	617,199	807,028						

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 \$363,997 when taken together with any contributions payable by members and asset returns, is the amount sufficient to achieve the financing objective for 2015.

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 52.9% as of January 1, 2015. This funded ratio is based on an actuarial value of assets of \$1,842,376 and an accrued liability of \$3,483,712.

Reasons for Change in the Total Funded Ratio

The total funded ratio increased from 47.0% as of January 1, 2014 to 52.9% as of January 1, 2015. Asset returns for 2014 were better than the expected return on asset assumption of 8.0%. The asset return paired with favorable plan liability experience is the reason for the increase in the total funded ratio.

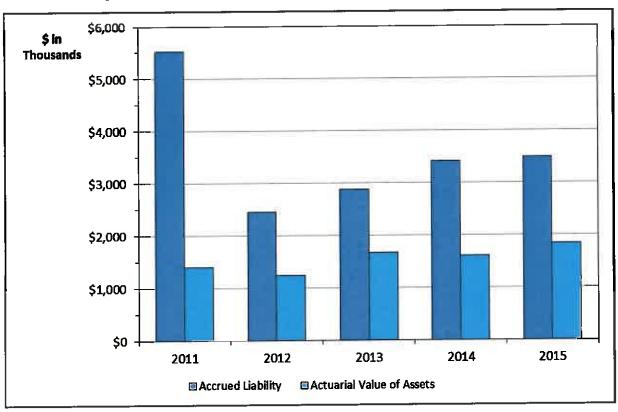


Five-Year History of Total Funded Ratio

Valuation as of January 1	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio
2015	\$ 3,483,712	\$ 1,842,376	\$ 1,641,336	52.9%
2014	3,410,663	1,602,994	1,807,669	47.0
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

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

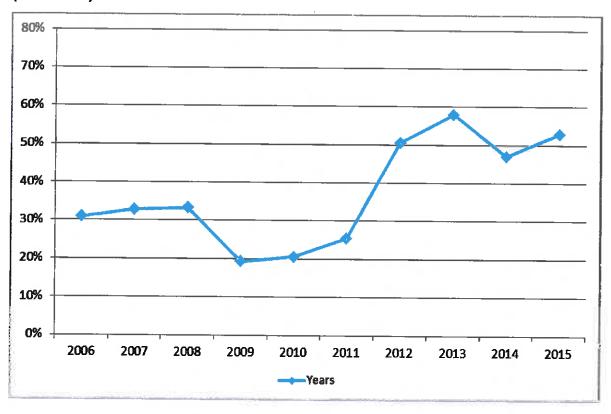




The following chart shows a ten-year history of the total funded ratio:

Ten-Year History of Total Funded Ratio

(2006 - 2015)





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 2010 through 2014 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	of Asset Values		Asset Values			ates of Retur	n
12/31		Market	_	Actuarial	Market	Actuarial	Assumed
2014	\$	1,842,376	\$	1,842,376	23.7%	23.7%	8.0%
2013		1,602,994		1,602,994	14.0%	14.0%	8.0%
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%

Compound Rate of Return (five years): 9.9%

GASB No. 67 and GASB No. 68 Disclosure

Please note that GASB Statement No. 25 (Financial Reporting for Defined Benefit Pension Plans) is applicable for fiscal years ending prior to 2014 and has been replaced by GASB Statement No. 67 (Financial Reporting for Pension Plans) for fiscal years ending 2014 and later. Similarly, GASB Statement No. 27 (Accounting for Pensions by State and Local Governmental Employers) is applicable for fiscal years ending prior to 2015 and has been replaced by GASB Statement No. 68 (Accounting and Financial Reporting for Pensions) for fiscal years ending 2015 and later.

9.9%

The discount rate used to measure the total pension liability was 8.0%. The projection of cash flows used to determine the discount rate assumed that System contributions will continue to follow the current funding policy. Based on those assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members.

The liabilities and normal cost presented for purposes of GASB No. 67 are calculated under the Entry Age Normal methodology per GASB Statement No. 67, with all other assumptions and methods listed in Table 11.



Net Pension Liability (Asset)								
	Dec	ember 31, 2014	Dec	ember 31, 2013				
Total Pension Liability Plan Fiduciary Net Position	\$	3,947,108 1,842,376	\$	3, 686,4 58 1,602,994				
Net Pension Liability (Asset)	\$	2,104,732	\$	2,083,464				
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (Asset)		46.68%		43.48%				

Please see Tables 11 – 16 for a summary of all GASB 67 results and assumptions.



TABLE 1 - Summary Of Results Of Actuarial Valuation

Item	Jan	uary 1, 2015	Janı	uary 1, 2014
Participant Data				
1. Number of Participants				
a) Active Participants	i	394		326
b) Participants with Deferred Benefits	i	4,783		4,434
c) Participants Receiving Benefits	!	47		39_
d) Total	1	5,224		4,799
2. Total Compensation	\$	3,925,214	\$	3,477,968
3. Annual Annuities	\$	85,058	\$	66,446
Valuation Results	1			
4. Actuarial Accrued Liability				
a) Active Participants	\$	443,185	\$	596,708
b) Participants with Deferred Benefits		2,278,756		2,215,590
 c) Participants Receiving Benefits 		<u>761,771</u>		598,365
d) Total	\$	3,483,712	\$	3,410,663
5. Actuarial Value of Assets	\$	1,842,376	\$	1,602,994
6. Funded Status: (5 / 4)		52.9 %		47.0 %
7. Unfunded Actuarial Accrued Liability: (4 - 5)	\$	1,641,336	\$	1,807,669
8. Normal Cost for the Plan Year	\$	85,445	\$	82,134
Employer Actual Funding Contribution and	!			
Annual Required Contribution for Fiscal 2015	Į.			
Actual Funding Contribution Calculated by Actuary		00.004	ው	88,705
a) Normal Cost with Interest	\$	92,281	\$	284,795
b) Net Annual Amortization Payments		271,716	\$	373,500
c) Total Contribution: ((a + b), not less than zero)	\$	363,997	Ψ	373,300



TABLE 2 - Security Of Promised Benefits - Unfunded Actuarial Accrued Liability - Funded Status

Item	January 1, 2015	January 1, 2014		
1. Actuarial Accrued Liability a. Active Participants Retirement Benefits Withdrawal Benefits Total Active b. Participants with Deferred Benefits c. Participants Receiving Benefits d. Total All Participants 2. Actuarial Value of Assets 3. Unfunded Actuarial Accrued Liability (1d - 2)	\$ 358,004 85,181 443,185 2,278,756 761,771 3,483,712 1,842,376 1,641,336	\$ 519,415		
4. Funded Status: (2 / 1d)	52.9%	47.0%		

Both valuations were based on the same methods and plan provisions.

The interest rate used as of January 1, 2015 and January 1, 2014 was 8.00%



TABLE 3 - Actuarial Gain/(Loss) For Plan Year Ending

ltem	Dece	mber 31, 2014	December 31, 2013		
Actuarial Accrued Liability at the Beginning of the Year	\$	3,410,663	\$	2,868,585	
2. Increases/(Decreases) During the Year					
a. Normal Cost for the Year		82,134		151,238	
b. Member Contributions		-	•	-	
c. Benefit Payments and Refunds	1	(126,636)		(133,976)	
d. Assumed Interest to End of Year*		274,456		236,330	
e. Plan and Assumption Changes					
f. Total: (a + b + c + d + e)		229,954		253,592	
3. Expected Liability at the End of the Year: (1 + 2)		3,640,617		3,122,177	
4. Actuarial Accrued Liability at the End of the Year		3,483,712		3,410,663	
5. Liability Gain/(Loss): (3 - 4)	\$	156,905	\$	(288,486)	
6. Actuarial Value of Assets at the Beginning of the Year	\$	1,602,994	\$	1,661,607	
7. Increases/(Decreases) During the Year					
a. County Contributions		440,000		360,000	
b. Member Contributions		_	1	-	
c. Benefit Payments and Refunds		(126,636)		(133,976)	
d. Administrative Expenses	1	(439,754)		(507,799)	
e. Assumed Interest to End of Year*	1	123,272		127,673	
f. Total: (a + b + c + d + e)		(3,118)		(154,102)	
8. Expected Actuarial Assets at the End of the Year (6 + 7)		1,599,876		1,507,505	
Actuarial Value of Assets at the End of the Year		1,842,376		1,602,994	
10. Actuarial Asset Gain/(Loss): (9 - 8)	\$	242,500	\$	95,489	
11. Total Gain/(Loss): (5 + 10)	\$	399,405	\$	(192,997)	

^{* 8.00%} per annum interest rate assumed for 2014 and 2013 plan years



TABLE 4 - Amortization Schedule For Actual Funding Contribution For 2015 Plan Year

		mortizat	ion Period		Balances			
i	Date	Initial	Remaining	Last			1	
Type of Payment	Created	Years	Years	Payment	Initial	Outstanding		Payment
1. Charges							i	
Reestablished unfunded	1/1/2004	30	19	2033	1,009,474	1,140,317	1	96,037
Loss	1/1/2005	30	20	2034	19,357			1,762
Expense	1/1/2006	10	1	2015	276,403	38,144		41,196
Assumption Change	1/1/2006	30	21	2035	318,945	350,299		27,783
Expense	1/1/2007	10	2	2016	307,150	81,633		45,774
Assumption Change	1/1/2007	30	22	2036	67,011	72,442	ı	5,594
Expense	1/1/2008	10	3	2017	449,781	172,741		67,031
Expense	1/1/2009	10	4	2018	590,678	291,563		88,028
Loss	1/1/2009	30	24	2038	406,803	434,947		32,007
Expense	1/1/2010	10	5	2019	627,953	373,648		93,584
Loss	1/1/2010	30	25	2039	16,048	17,022		1,227
Expense	1/1/2011	10	6	2020	519,351	357,802	1	77,399
Expense	1/1/2012	10	7	2021	732,297	568,191		109,134
Expense	1/1/2013	10	8	2022	504,824	432,340	l	75,234
Assumption Change	1/1/2013	30	28	2042	163,746	168,226		11,447
Expense	1/1/2014	10	9	2023	507,799	472,746	l	75,677
Variance	1/1/2014	5	4	2018	28,625	23,746		7,169
Loss	1/1/2014	30	29	2043	192,997	195,719		13,100
Expense	1/1/2015	10	10	2024	439,754	439,754		65,536
Total Charges						\$ 5,652,865	\$	934,719
2. Credits								
Gain	1/1/2006	30	21	2035	\$ 16,036	\$ 17,615	\$	1,396
Gain	1/1/2007	30	22	2036	134,681	145,597	*	11,243
Gain	1/1/2008	30	23	2037	129,979	139,856	l	10,534
Variance	1/1/2011	5	1	2015	69,561	16,131		17,421
Gain	1/1/2011	30	26	2040	103,867	109,146	l	7,703
Variance	1/1/2012	5	2	2016	1,214,972	542,642	1	304,298
Gain	1/1/2012	30	27	2041	2,137,898	2,222,653		153,939
Variance	1/1/2013	5	3	2017	433,548	279,834	i	108,585
Gain	1/1/2013	30	28	2042	70,229	72,150		4,910
Gain	1/1/2015	30	30	2044	399,405	399,405	}	26,319
Variance	1/1/2015	5	5	2019	66,500	66,500	Ì	_ 16,655
Total						\$ 4,011,529	\$	663,003
3. N e (1 - 2)						\$ 1,641,336	\$	271,716

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, 2015		Janu	ary 1, 2014
Unit Credit Normal Cost a. Active Participants		-		
Retirement Benefits Withdrawal Benefits	\$	60,080 25,365	\$	61,130 21,004
Total		85,445		82,134
2. Interest to the End of the Plan Year		6,836		6,571
3. Normal Cost for the Plan Year: (1 + 2)		92,281		88,705



TABLE 6 - Contribution Requirements – End-Of-Year Basis Actual And Budget Amounts For Current Plan Year Budget Amount For Next Plan Year

Item		2016 Budget		2015			
item				Actua!	<u>.</u>	Budget	
1. Normal Cost with Interest	\$	100,000	\$	92,281	\$	97,000	
2. Net Annual Amortizations		779,000		271,716		305,000	
Total Contribution (1 + 2, not less than zero)	\$	879,000	\$	363,997	\$	402,000	

The budgeted contributions shown above for the 2016 and 2015 plan years were estimated based on participant data as of January 1, 2015, and January 1, 2014, respectively.



TABLE 7 Summary Statement Of Market Value Of Plan Assets

Asset Category	Decei	mber 31, 2014	December 31, 2013	
Cash and Cash Equivalents Investments at Fair Value	\$	(9,149) 1,406,861	\$	2,622 1,232,289
Contributions Receivable		444,664		368,083
 Net Assets Available for Benefits (1 + 2 + 3) 	\$	1,842,376	\$	1,602,994



TABLE 8 - Summary Reconciliation Of Market Value Of Plan Assets

Item	•	Year Ending mber 31, 2014	For Year Ending December 31, 2013	
Market Value of Assets at the Beginning of the Year Contributions for Plan Year	\$	1,602,994	\$	1,661,607
a. County b. Member	\$	440,000	\$	360,000
c. Total		440,000		360,000
3. Disbursements for Plan Year				
a. Benefit payments and refundsb. Administrative expenses payable to County	\$	126,636	\$	133,976
c. Total		439,754 566,390		507,799 641,775
4. Market Value of Assets at the End of the Year		1,842,376	"	1,602,994
5. Net Investment Income* (4 - 1 - 2c + 3c)		365,772		223,162
6. Expected Net Investment Income (8.00% per annum)		123,272		127,673
7. Gain (Loss) on Market Value of Assets (5 - 6)		242,500		95,489
8. Estimated Rate of Return		23.7%		14.0%

^{*}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

	Janu	uary 1, 2015	Jan	uary 1, 2014
Actuarial Value of Assets	\$	1,842,376	\$	1,602,994

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



TABLE 10 - Employer Contributions For 2014 Plan Year And Variance From The Funding Calculation Contribution

	_ _		Amount				
1.	Total Funding C (from January 1,	\$	373,500				
2.	Total Employer	Contributions Made, E	nd-of-Y	ear Basis			
	Contribution Made	Fraction of a Year Invested	Contribution Interest to Amount Year End*		End of Year Amount		
	Bi-weekly 2/15/2015	50.0% 0.0%	\$	- 440,000	\$ -	\$	- 4 4 0,000
	4/15/2015	0.0%		-	~		100
	5/15/2015	0.0%		540	-		==01
	6/15/2015 7/15/2015	0.0% 0.0%		(*);			(%);
	Total		\$	440,000	\$	\$	440,000
	Variance from Fi	unding Calculation Am	ount**			\$	66,500

^{*} Interest to 12/31/2014 at 8.00% per annum

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



TABLE 11 – Actuarial Methods and Assumptions for GASB 67/68 Disclosure Purposes

The total pension liability as of December 31, 2014 was determined by rolling forward the total pension liability as of January 1, 2014 to December 31, 2014 using the following actuarial methods and assumptions, applied to all periods included in the measurement. All other assumptions such as retirement rates, termination rates, and disability rates used to determine the total pension liability are set forth in Table 17 – Description of Actuarial Assumptions and Methods.

Valuation Date:	January 1, 2014
Actuarial Cost Method:	Entry Age Normal – Level Percentage of Pay
Amortization Method:	For pension expense; the difference between expected and actual liability experience and changes of assumptions are amortized over the average of the epxected remaining service lives of all members. The difference between projected and actual earnings is amortized over a closed period of five years.
Mortality:	Healthy pensioners: The sex-distinct UP-1994 Mortality Table with Projection scale AA to 2012 and then fully generational thereafter using scale AA.
Experience Study:	Active members: 70% of the rates applicable to healthy pensioners. The actuarial assumptions used were based on the results of an actuarial experience study for the period January 1, 2006 through December 31, 2011.



TABLE 12 - GASB 67 Net Pension Liability as of December 31, 2014

Schedule of Changes in Net Pension Liability as of I	Dece	mber 31, 2014
Total Pension Liability		
Service Cost Interest Changes of Benefit Terms Difference between Expected and Actual Experience Change of Assumptions Benefit Payments, including Refund of Member Contributions Net Change in Total Pension Liability	\$	97,190 297,436 - - (133,976) 260,650
Total Pension Liability - Beginning of Year Total Pension Liability - End of Year Plan Flduciary Net Position	\$	3,686,458 3,947,108
Employer Contributions Member Contributions Net Investment Income Benefit Payments, including Refund of Member Contributions Administrative Expenses Other Net Change in Plan Fiduciary Net Position	\$	360,000 - 453,112 (133,976) (439,754) - 239,382
Plan Fiduciary Net Position - Beginning of Year Plan Fiduciary Net Position - End of Year	\$ \$	1,602,994 1,842,376

Net Pension Liability (Asset)						
	Dec	ember 31, 2014	Dec	ember 31, 2013		
Total Pension Liability Plan Fiduciary Net Position Net Pension Liability (Asset)	\$ 	3,947,108 1,842,376 2,104,732	\$ -	3,686,458 1,602,994 2,083,464		
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability (Asset)		46.68%		43.48%		



TABLE 13 – Sensitivity of the net pension liability as of December 31, 2014 to changes in the discount rate

	ivity of the Net Per Changes in the Dis		
	1% Decrease	Current	1% Increase
Discount Rate	7.00%	8.00%	9.00%
Net Pension Liability (Asset)	2,941,638	2,104,732	1,479,757



TABLE 14 – Estimate of the Pension Expense for year ended December 31, 2015

Estimated Pension Expense for The Fiscal Year Ended December 31, 2015					
Service Cost	\$	104,965			
Interest	1	318,945			
Difference between Expected and Actual Experience		-			
Change of Assumptions		-			
Estimated Contributions Member		_			
Projected Earnings on Plan Investments		(127,453			
Difference between Expected and Actual Earnings		,			
Administrative Expense		375,133			
Other		-			
Changes of Benefit Terms		_			
Total Pension Expense] —	671,590			



TABLE 15 – Projection of Fiduciary Net Position

			Duele et et Damasta	Projected Administrative	Drojected Investment	Projected Ending
					Earnings	Fidiclary Net Position
<u>Year</u>	Fiduciary Net Position	Contributions	Payments	<u>Expense</u> \$ 375,133		\$ 1,916,334
2015	\$ 1,842,376	T	\$ 133,078	340,986	509,466	2,387,081
2016	1,916,334	440,000	137,733	316,883	398,850	3,117,518
2017	2,387,081	801,563	153,093	296,439	252,884	3,925,245
2018	3,117,518	1,015,452	164,170	281,205	137,350	4,623,012
2019	3,925,245	1,025,375	183,753	266,837	259,880	5,267,035
2020	4,623,012	855,914	204,934 222,516	253,784	317,003	5,861,731
2021	5,267,035	753,993	235,198	242,962	337,402	6,379,336
2022	5,861,731	658,363	237,318	237,372	424,307	6,865,006
2023	6,379,336	536,053	253,437	236,076	467,040	7,301,856
2024	6,865,006	459,323	287,838	236,548	500,998	7,665,573
2025	7,301,856	387,105 315,247	315,965	226,082	595,979	8,034,752
2026	7,665,573	310,376	333,931	214,216	621,200	8,418,181
2027	8,034,752	301,896	361,254	213,253	637,489	8,783,059
2028	8,418,181	280,103	370,941	211,626	687,886	9,168,481
2029	8,783,059	279,896	401,566	212,565	716,728	9,550,974
2030	9,168,481	278,899	420,065	204,975	747,979	9,952,812
2031	9,550,974	279,279	429,768	202,550	770,789	10,370,562
2032	9,952,812	279,279	431,475	202,268	816,746	10,824,268
2033	10,370,562	274,731	453,200	207,742	666,816	11,104,873
2034	10,824,268	93,385	469,938	203,581	857,580	11,382,319
2035	11,104,873	81,011	473,734	200,908	833,500	11,622,188
2036	11,382,319 11,622,188	22,510	475,993	207,367	900,309	11,861,647
2037	11,861,647	11,717	471,110	209,484	952,487	12,145,257
2038	12,145,257	33,754	502,759	216,847	918,143	12,377,548
2039	12,377,548	33,734	530,113	211,311	969,407	12,605,531
2040 2041	12,605,531	(2)	546,446	207,971	987,005	12,838,119
2041	12,838,119	-	576,530	210,850	1,244,626	13,295,365
2042	13,295,365	240,194	•	208,031	1,014,475	13,750,605
2043	13,750,605	214,241	610,318	208,639	1,040,652	14,186,541
2045	14,186,541	178,788	653,695	208,607	1,113,155	14,616,182
2046	14,616,182		709,112	206,036	1,148,735	15,032,433
2040	15,032,433		745,647	199,769	1,185,020	15,461,960
2047	15,461,960		•	197,537	1,198,195	15,847,728
2049	15,847,728		897,828	179,284	1,230,407	16,195,892
2050	16,195,892		955,223	162,402	1,238,694	16,509,641
2051	16,509,641	173,177	1,063,637	152,766	1,261,400	
2052	16,727,815	-		124,791	1,283,309	16,883,742
2053	16,883,742		1,234,923	106,171	1,273,109	
2054	16,961,808	'	1,321,534	88,909	1,286,492	
2055	16,954,764		1,384,073	72,753	1,287,397	16,883,634
2056	16,883,634			64,556	1,278,173	
2057	16,685,504	•		40,576	1,267,469	
2058	16,407,610			26,126		
2059	16,046,232	·		19,294		
2060	15,627,790	•		12,061		
2061	15,170,253			6,591	1,141,500	
2062	14,686,760			1,466		
2063	14,198,819	•			1,069,109	
2064	13,713,454				1,036,014	13,234,912
		•				



TABLE 15 - Projection of Fiduciary Net Position - continued

Payments		Projected Beginning	Projected Total	Projected Benefit	Projected Administrative	Projected Investment	Projected Ending
2066 \$ 13,234,912 \$ \$ 1,498,078 \$ 1.001,164 \$ 21,2767,089	<u>Year</u>	Fiduciary Net Position	Contributions	Payments			
2086 12,787,088	2065		\$				
2067 12,312,811 - 1,388,869 931,323 11,875,285 2068 11,875,285 1.315,582 888,410 11,458,083 2069 11,458,083 1.200,096 887,213 11,055,210 11,055,210 11,055,210 11,005,210 11,005,210 11,005,210 11,005,210 11,005,210 11,005,210 11,005,210 11,005,210 11,005,210 10,700,961 11,42,167 811,269 10,370,083 707,239 10,077,364 10,157,54 768,341 9,827,951 949,864 748,972 9,627,059 862,726 758,527,059 862,726 758,555 9,479,868 181,4684 768,429 9,381,613 746,294 722,052 9,367,371 678,007 722,791 9,412,155 610,305 722,791 9,412,155 610,305 722,791 9,412,155 610,305 722,991 9,472,155 610,305 722,991 9,472,155 610,305 722,991 9,472,155 610,305 722,991 9,472,155 610,305 722,991 9,472,155 610,305 722,991 9,472,155 610,305 722,993 9,530,880 543,969 741,130 9,530,880 2060 9,530,880 543,969 741,130 9,530,880 10,373,330 358,862 815,797 10,529,865 11,373,803 358,862 815,797 10,529,865 11,373,803 358,862 815,797 10,529,865 11,376,646 255,528 900,256 12,023,076 220,941 10,829,865 11,376,646 255,528 900,256 12,023,076 2069 14,556,383 106,500 11,603,394 13,603,244 13,656,383 106,500 11,603,394 13,603,244 13,656,383 106,500 11,603,394 13,603,244 13,656,383 106,500 11,603,394 13,656,384 13,666,384 13,666,384 13,666,384 13,666,384 13,666,384 13,666	2066	12,767,098	-				
2068 11,875,265	2067		=				
2069 11.456,093	2068	11,875,265	€:				
2070 11,065,210 - 1,202,298 383,550 10,700,981	2069	11,458,093	-	•	-		
2071 10,700,961	2070	11,065,210		•			
2072 10,370,063 1,079,938 787,239 10,077,364 2073 10,077,384 1,1015,754 786,341 9,227,951 2074 9,227,851 949,864 744,972 9,227,059 2076 9,627,059 82,2726 733,535 9,479,668 2076 9,479,868 814,684 722,052 9,391,613 2077 9,391,613 746,294 722,052 9,367,371 2078 9,367,371 678,007 722,791 9,412,165 2079 9,412,155 610,305 7229,030 9,830,880 2080 9,530,880 543,969 741,130 9,728,041 2081 9,728,041 479,687 759,425 10,007,778 2082 10,007,779 418,070 764,221 10,373,830 2083 10,373,930 358,862 815,787 10,529,665 2084 10,629,865 305,617 884,400 11,378,648 2085 11,376,649 255,825 900,256 12,023,076 2086 12,023,076 210,915 933,572 2087 12,765,733 171,038 1,014,549 13,609,244 2088 13,609,244 136,255 10,833,344 14,556,383 2089 14,556,383 106,500 1,160,333 15,610,216 2090 15,610,216 81,559 1,245,618 16,774,275 2091 16,774,275 61,111 1,339,545 18,002,709 2092 18,052,709 44,732 11,923 1,902,209 2093 19,460,439 31,902 1,554,744 20,973,321 2094 20,973,321 22,136 1,676,997 22,628,162 2095 22,628,182 14,923 1,909,669 24,422,928 1,903,329 1,004,549 3,300,244 20,973,321 22,255 22,262,182 20,973,221 22,65,733 20,973,321 22,255 22,826,821 20,973,321 22,255 22,826,821 20,973,321 22,255 22,826,821 20,973,321 22,255 22,826,821 20,973,321 22,255 22,826,821 20,999 30,743,129 2,255 22,826,821 20,999 30,743,129 2,255 22,826,821 20,999 30,743,129 2,255 22,826,821 20,999 30,743,129 2,255 2,255 2,888,344 3,872,259 2101 35,854,903 37,902,269 41,456,309 30,743,129 2,255 2,888,344 3,872,259 30,778,841,899,000 210 35,854,903 37,902,269 41,466,309 47,746,569 41,466,639 77,746,569 44,746,639 47,746,569 41,466,639 77,746,56	2071	10,700,961	-		2	· ·	
2073 10,077,364 1,1015,754 768,341 9,827,951 2074 9,827,851 948,884 748,972 9,627,059 2075 9,627,059 882,726 735,555 9,479,868 2076 9,479,868 314,684 726,429 9,331,613 746,294 722,062 9,367,371 676,007 722,761 9,412,155 6 610,305 722,003 9,630,880 9,530,880 543,969 741,130 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 9,728,041 10,007,779 10,007,779 118,070 764,221 10,373,930 2083 10,077,390 418,070 764,221 10,373,930 2084 10,623,965 305,617 854,400 11,378,646 265,626 900,256 12,023,076 2086 11,576,646 255,626 900,256 12,023,076 2086 12,023,076 210,915 935,572 12,765,733 2087 12,765,733 171,038 1,014,549 13,608,244 136,255 1,083,394 14,556,383 106,500 1,160,333 15,610,216 81,559 1,245,618 16,774,275 2091 16,774,275 611,111 1,339,545 18,052,709 2092 18,062,709 44,732 14,933 1,940,439 13,608,244 20,973,321 22,136 16,500,709 44,732 1,442,462 19,450,439 20,993,321 22,136 16,650 1,554,618 16,774,275 2091 16,774,275 611,11 1 3,339,545 18,052,709 2092 18,062,709 44,732 14,923 1,899,669 24,422,928 9,3743,129 2,255 2,469,362 1,953,461 26,366,614 6,189 2,097,321 22,136 1,676,997 22,628,182 2099 30,743,129 2,255 2,469,362 3,300,236 41,819,930 20,3743,129 2,255 2,469,362 3,300,236 41,819,930 20,3743,129 2,255 2,469,362 3,300,236 41,819,930 2,4422,928 9,3743,129 2,255 2,469,362 3,300,236 41,819,930 20,3743,129 2,255 2,469,362 3,300,236 41,819,930 20,3743,129 2,255 2,469,362 3,300,236 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444 41,819,930 20,444,42,422 20,444,42,422 20,444,449 20,44	2072	10,370,063					
2074 9,827,651 948,884 748,972 9,827,059 2076 9,479,868 882,726 735,635 9,479,868 2076 9,479,868 814,684 728,429 9,391,613 2077 9,391,613 740,294 722,062 9,367,371 2078 9,347,155 610,305 728,030 9,530,880 2080 9,530,880 543,969 741,130 9,728,041 2081 9,728,041 479,687 759,425 10,007,779 2083 10,007,779 418,070 794,221 10,373,930 2084 10,829,865 305,617 854,400 11,378,648 2085 210,775,644 255,828 900,256 12,23,076 2086 12,023,076 210,915 953,572 12,765,733 2087 12,785,733 171,038 1,044,649 13,609,244 2088 13,609,244 136,255 1,083,394 14,556,383 2089 14,556,383 106,500 1,180,333 15,610,216	2073	10,077,364			-		
2076 9,627,059 882,726 735,535 9,479,688 2076 9,479,868 - 814,684 - 726,629 9,391,613 2077 9,391,613 746,294 - 722,052 9,367,371 678,007 722,791 9,412,155 2079 9,412,155 - 610,305 729,030 9,530,880 9,530,880 - 543,969 741,130 9,728,041 978,687 759,425 10,007,779 418,070 758,421 10,007,779 418,070 758,421 10,007,779 418,070 758,421 10,073,393 2083 10,373,930 369,862 815,797 10,829,865 2084 10,829,865 305,617 854,400 11,378,648 255,828 900,256 12,023,076 210,915 953,572 12,765,733 2087 12,765,733 171,038 10,4549 13,609,244 136,255 1,083,394 14,556,383 10,690,244 136,255 1,083,394 14,556,383 16,500 15,610,216 81,559 14,674,275 11,602,709 16,774,275 2091 16,774,275 61,111 1,339,545 18,052,709 2093 19,450,439 31,902 - 1,554,784 20,973,321 2094 20,973,321 20,226,885 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,882 20,226,883 20,226,883 20,226,884 20,226,226,884 20,226,226,884 20,226,226,884 20,226,226,884 20,226,226,884 20,226,226,884 20,226,226,884 20,226,226,226,226,226,226,226,226,226,2	2074		40		_	· ·	
2076 9,479,868 814,684 728,429 9,391,613 746,294 772,052 9,367,371 2078 9,391,613 746,294 772,052 9,367,371 2078 9,367,371 678,007 722,791 9,412,155 610,305 722,003 9,530,880 9,530,880 9,530,880 9,530,880 9,530,880 9,530,880 9,530,880 10,007,779 411,007,779 418,070 784,221 10,077,778 2083 10,007,779 418,070 784,221 10,073,393 2083 10,373,930 368,662 815,797 10,829,865 2084 10,829,865 305,617 884,400 11,376,648 2085 11,378,648 255,828 900,256 12,023,076 210,915 953,572 12,765,733 2097 12,765,733 171,038 1,014,549 13,009,244 2088 13,609,244 138,255 1,083,394 14,556,383 106,500 1,160,333 15,610,216 81,559 1,245,518 16,774,275 61,111 1,338,545 18,052,709 16,774,275 61,111 1,338,545 18,052,709 2091 16,774,275 61,111 1,338,545 18,052,709 2092 18,052,709 44,732 21,424,452 19,450,439 2093 19,450,439 31,902 1,554,784 20,973,321 22,268,182 20,973,321 22,2136 1,1676,997 22,628,182 2094 20,973,321 22,136 14,923 1,009,669 24,422,928 20,966 24,422,928 9,765 1,963,451 2,686,814 20,973,321 2,265,986 21,425,668 31,202,709 20,308,614 20,973,321 2,225 20,966 24,422,928 9,765 1,963,451 2,686,814 20,973,321 2,2265 2,288,182 20,973,321 2,2265 2,288,182 20,973,321 2,2265 2,288,182 20,973,321 2,266 2,386,814 20,973,321 2,266 2,386,814 20,973,321 2,266 2,386,814 20,973,321 2,266 2,386,814 20,973,321 2,266 2,386,814 20,973,321 2,266 2,489,651 2,686,861 2,686,8	2075						
2077 9.391,613 746,294 722,052 9.367,371 2078 9.367,371 678,007 722,791 9.412,155 2079 9.412,155 - 610,305 722,030 9.530,880 2080 9.530,880 - 543,969 741,130 9.728,041 2081 9.728,041 479,687 759,425 10,007,779 2082 10,007,779 418,070 784,221 10,373,330 2083 10,373,930 - 369,862 815,797 10,829,865 2084 10,829,865 9305,617 854,400 11,378,648 2085 11,378,648 255,828 900,256 12,023,076 2086 11,0373,331 171,038 10,14,549 13,609,244 2086 11,565,333 171,038 1,014,549 13,609,244 2088 13,609,244 136,255 1,083,394 14,565,383 2089 14,565,383 106,500 1,160,333 15,610,216 2090 15,610,216 81,559 - 1,245,618 16,774,275 2091 15,774,275 61,111 1,399,545 18,052,709 2092 18,082,709 44,732 1,442,462 19,450,439 2093 19,450,439 31,902 - 1,564,784 20,973,321 2094 20,973,321 22,136 16,769,997 22,628,182 2095 22,628,182 14,923 1,809,669 24,422,928 2096 24,422,928 9,765 - 1,953,451 26,366,614 2097 26,366,614 6,189 - 1,090,086 28,469,511 2099 28,469,511 3,794 2,225 2,459,362 2100 33,200,256 - 1,301 2,655,968 35,864,903 2102 39,722,539 397 - 3,097,788 41,819,930 2103 41,819,930 211 3,845,566 45,165,305 2106 61,446,639 7 - 4,214,449 56,896,619 2110 71,671,348 2 - 5,733,708 77,405,084 2111 77,405,654 1 6,697,797 90,285,254	2076		4				
2078	2077		**				
2079	2078			•			
2080	2079					· ·	
2081 9,728,041 479,687 759,425 10,007,779 2082 10,007,779 418,070 784,221 10,373,930 2083 10,373,930 369,662 816,797 10,828,865 2084 10,829,865 305,617 854,400 11,378,648 2085 11,378,648 255,828 90,256 12,023,076 2086 12,023,076 210,915 953,572 12,765,733 2087 12,765,733 171,038 1,014,549 13,609,244 2088 13,609,244 136,255 1,083,394 14,656,383 2089 14,556,383 106,500 1,160,333 15,610,216 2090 15,610,216 81,559 1,245,618 16,774,275 2091 16,774,275 61,111 1,339,545 18,052,709 2092 18,052,709 44,732 1,442,462 19,460,439 2093 19,450,439 31,902 1,554,784 20,973,321 2094 20,973,321 22,136 1,676,997 22,528,182 2095 22,628,182 14,923 1,809,669 24,422,928 2096 24,422,928 9,765 1,853,451 26,368,614 2097 26,366,614 6,189 2,109,086 24,422,928 2098 28,469,511 3,794 2,277,412 30,743,129 2099 30,743,129 2,255 2,459,362 33,200,236 2100 33,200,236 1,301 2,655,968 35,854,903 2101 35,854,903 728 2,265 2102 36,722,539 397 3,097,788 41,819,930 2103 41,819,930 211 3,345,566 45,165,305 2104 45,165,305 110 3,445,660 3,902,277 45,660,630 2107 56,895,050 14 4 4 5,639 77 4,4915,731 66,362,363 2100 66,362,363 4 5,500,999 71,671,348 2110 71,671,348 2 2 5,733,708 77,405,054 2111 77,405,054 2112 83,587,457 - 6,687,797 90,285,254	2080		_	•		•	
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2093 19,450,439 31,902 - 1,554,784 20,973,321 2094 20,973,321 - 22,136 1,676,997 22,628,182 2095 22,628,182 14,923 1,809,669 24,422,928 2096 24,422,928 - 9,765 - 1,953,451 26,366,614 2097 26,366,614 - 6,189 - 2,109,086 28,469,611 2098 28,469,511 3,794 2,277,412 30,743,129 2099 30,743,129 - 2,255 2,459,362 33,200,236 2100 33,200,236 - 1,301 - 2,655,968 35,854,903 2101 35,854,903 728 2,868,364 38,722,539 2102 38,722,539 397 - 3,097,788 41,819,930 2103 41,819,930 211 3,345,586 45,165,305 2104 45,165,305 110 3,613,220 48,778,415 2105 48,778,415 56 3,902,271 52,680,630 2106 52,680,630 29 - 4,214,449 56,895,050 2107 56,895,050 14 - 4,551,603	2092		240	·			
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2103 41,819,930 211 3,345,586 45,165,305 2104 45,165,305 110 3,613,220 48,778,415 2105 48,778,415 56 3,902,271 52,680,630 2106 52,680,630 29 - 4,214,449 56,895,050 2107 56,895,050 14 - 4,551,603 61,446,639 2108 61,446,639 7 4,915,731 66,362,363 2109 66,362,363 4 - 5,308,989 71,671,348 2110 71,671,348 2 - 5,733,708 77,405,054 2111 77,405,054 1 6,192,404 83,597,457 2112 83,597,457 - 6,687,797 90,285,254	2102		2 4		F2		
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2107 56,895,050 14 - 4,551,603 61,446,639 2108 61,446,639 7 - 4,915,731 66,362,363 2109 66,362,363 - 4 - 5,308,989 71,671,348 2110 71,671,348 2 - 5,733,708 77,405,054 2111 77,405,054 1 6,192,404 83,597,457 2112 83,597,457 - 6,687,797 90,285,254	2106				-		
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TABLE 16 – Actuarial Present Values of Projected Benefit Payments

Year	Projected Beginning	Projected Benefit	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Present Value of Funded Benefit Payments at 8.00%	Present Value of Unfunded Benefit Payments at 3,34%	Present Value of Benefit Payments Using Single Discount Rate of 8.00%
2015	\$ 1,842,376					\$	133,078
2016	1,916,334	137,733	137,733		127,531	98	127,531
2017	2,387,081	153,093	153,093		131,253	12	131,253
2018	3,117,518	164,170	164,170	24	130,323	1.7	130,323
2019	3,925,245	183,753	183,753		135,064	34	135,064
2020	4,623,012	204,934	204,934	3	139,475	100	139,475
2021	5,267,035	222,516	222,516			- E	140,223
2022	5,861,731	235,198	235,198		137,236	17	137,236
2023	6,379,336	237,318	237,318		128,216	- 12	128,216
2023	6,865,006	253,437	253,437	-	126,782	9.7	126,782
2025	7,301,856	287,838	287,838	8	133,325	-	133,325
2026	7,665,573	315,965	315.965		135,512	-	135,512
2027	8,034,752	333,931	333,931	<u> </u>		-	132,609
2028	8,418,181	361,254	361,254	55	132,832	_	132,832
2029	8,783,059	370,941	370,941	9	126,291	-	126,291
2030	9,168,481	401,566	401,566			12	126,590
2030	9,550,974	420,065	420,065		122,613	- 3	122,613
2032	9,952,812	429,768	429,768		116,153	13	116,153
2032	10,370,562	431,475	431,475		107,976	G-	107,976
2034	10,824,268	453,200	453,200		105,012	8	105,012
2035	11,104,873	469,938	469,938		100,824	19	100,824
2036	11,382,319	473,734	473,734		94,110	-	94,110
2037	11,622,188	475,993	475,993		.= .= 4	1.0	87,554
2038	11,861,647	471,110	471,110		80,237	(a)	80,237
2039	12,145,257	502,759	502,759		79,285		79,285
2040	12,377,548	530,113	530,113		77,406	3	77,406
2040	12,605,531	546,446	546,446		73,880	.50	73,880
2042	12,838,119	576,530	576,530		72,174	24	72,174
2042	13,295,365	591,398	591,398		68,551	5.5	68,551
2044	13,750,605	610,318	610,318			5.0	65,504
2045	14,186,541	653,695	653,695		64,962	0.0	64,962
2046	14,616,182	709,112	709,112		65,250	3	65,250
2047	15,032,433	745,647	745,647		63,529	98	63,529
2048	15,461,960	816,490	816,490		64,412	(*	64,412
2049	15,847,728	897,828	897,828		65,582	1.7	65,582
2050	16,195,892	955,223	955,223		64,606	73	64,606
2051	16,509,641	1,063,637	1,063,637		66,610	107	66,610
2052	16,727,815	1,158,124	1,158,124		67,155	7.0	67,155
2053	16,883,742	1,234,923	1,234,923		66,304		66,304
2054	16,961,808	1,321,534	1,321,534		65,698	1.6	65,698
2055	16,954,764	1,384,073	1,384,073		63,710	-	63,710
2056	16,883,634	1,495,360	1,495,360		63,734	-	63,734
2057	16,685,504	1,574,546	1,574,546		62,138		62,138
2058	16,407,610	1,625,416	1,625,416		59,394	-	59,394
2059	16,046,232		1,646,471		55,707	5.0	55,707
2060	15,627,790	1,651,739	1,651,739		51,745		51,745
2061	15,170,253	•	1,639,240		47,550		-11,000
2062	14,686,760	1,605,547	1,605,547		43,123		43,123
2062	14,198,819		1,561,592		- 38,835		38,835
2064	13,713,454		1,516,139		34,912		34,912



TABLE 16 – Actuarial Present Values of Projected Benefit Payments - continued

<u>Year</u>	Projected Beginning Elduciarty Net Position	Projected Benefit	Funded Portion of Projected Benefit Payments	Unfunded Portion of Projected Benefit Payments	Funded Benefit		Present Value of Benefit Payments Using Single Discount
2065	\$ 13,234,912				Payments at 8.00% \$ 31,320		Rate of 8.00%
2066	12,767,098	1,419,950	1,419,950	¥	28,032		\$ 31,320
2067	12,312,811	1,368,869	1,368,869		25,022	75	28,032
2068	11,875,265	1,315,582	1,315,582		22,267		25,022
2069	11,458,093	1,260,096	1,260,096		•	-	22,267
2070	11,065,210	1,202,299	1,202,299		19,748	-	19,748
2071	10,700,961	1,142,167	1,142,167	-	17,446	-	17,446
2072	10,370,063	1,079,938	1,079,938	3	15,346	-	15,346
2073	10,077,364	1,015,754	1,015,754		13,435	-	13,435
2074	9,827,951	949,864	949,864	3	11,701		11,701
2075	9,627,059	882,726	882,726	-	10,131		10,131
2076	9,479,868	814,684	814,684		8,718	- 5	8,718
2077	9,391,613	746,294	746,294		7,450		7,450
2078	9,367,371	678,007	678,007	3	6,319	*	6,319
2079	9,412,155	610,305	610,305		5,315	-	5,315
2080	9,530,880	543,969	543,969		4,430	8	4,430
2081	9,728,041	479,687	479,687		3,656	-	3,656
2082	10,007,779	418,070	418,070		2,985	8	2,985
2083	10,373,930	359,862	359,862		2,409	-	2,409
2084	10,829,865	305,617	305,617		1,920		1,920
2085	11,378,648	255,828	255,828		1,510	4	1,510
2086	12,023,076	210,915	210,915	5	1,170		1,170
2087	12,765,733	171,038	171,038	-	893		893
2088	13,609,244	136,255	136,255	-	671		671
2089	14,556,383	106,500	106,500	-	495	-	495
2090	15,610,216	81,559	81,559	8	358		358
2091	16,774,275	61,111	61,111		254		254
2092	18,052,709	44,732	44,732		176		176
2093	19,450,439	31,902	31,902		119	*-	119
2094	20,973,321	22,136	22,136	ŧ.	79 51	*	79
2095	22,628,182	14,923	14,923	*:	32		51
2096	24,422,928	9,765	9,765	- 5	32 19	20 20 20 20	32
2097	26,366,614	6,189	6,189	*,	าย 11	**	19
2098	28,469,511	3,794	3,794	- 1	6	\$3 25	11
2099	30,743,129	2,255	2,255	*	4	**	6
2100	33,200,236	1,301	1,301	- 9	2	*	4
2101	35,854,903	728	728		1	+:	2
2102	38,722,539	397	397	2	0	*5	1
2103	41,819,930	211	211		0	-	0
2104	45,165,305	110	110	3	0	-	0
2105	48,778,415	56	56		0	-	0
2106	52,680,630	29	29	- 5		-	0
2107	56,895,050	14	14		0	-	0
2108	61,446,639	7	7		0	-	0
2109	66,362,363	4	4			-	0
2110	71,671,348	2	2	12	0	-	0
2111	77,405,054	(4)	1		0	-	0
2112	83,597,457	1	102-0	18	0	9.75	0
2113	90,285,254		湯		(.6.)		
	00,200,204						220



TABLE 17 - 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	tained Mortality			
Age	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.



Annual Rates per 100 Participants

	Withdrawal										
Attained Age	Sel	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					

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.

The full 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 in the annual contribution.

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, 2015 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. An assumption was made for deferred vested inactive members for which no salary or benefit info was provided. For these members, it is assumed that their benefit amount is equal to the average benefit amount of the deferred vested population for which benefit information is available.



TABLE 18 - 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.

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 19 - Summary Of Membership Data As Of January 1, 2015

Active Participants

ltem	Total
Number of Participants	394
Average Annual Salaries *	\$ 9,962
Average Age	29.0
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	4,783	\$ 1,377,633	\$ 288
Participants receiving benefits	47	<u>85.058</u>	1.810
Total	4,830	\$ 1,462 ,691	\$ 303



EXHIBIT I - Active Membership Data

Number And Average Annual Salary* As Of January 1, 2015

	Years of Service									
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
Under 25	188 \$6,242	32 \$14,227								220 \$7,404
25-29	31 \$14,898	17 -	9							57 \$15,222
30-34	15 -	6	7	3 -						31 \$13,579
35-39	10 -		4							14
40-44	6	1 %			1 9					8 -
45-49	9	2		1						12 -
50-54	13 -	5		1 8#	1 -					20 -
55-59	13 -		1		1					15 -
60-64	6 -	1	3 ;₌							10 -
Over 64	6	1 (2)								7
Total	297 \$8,095	65 \$14,928	24 \$15,711	5	3					394 \$9,962

^{*} 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	Fotal Annual Payroll	Percentage Change in Payroll
2015	394	20.86%	\$ 3,925,214	12.86%
2014	326	(74.87%)	3,477,968	(55.04%)
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%

Retired Participants

Valuation as of January 1	Number on roll	Additions	Deletions	Percentage Change in Membership	Annual Annuities	Percentage Change in Annuities
2015	47	8	(%)	20.51%	\$ 85,058	28.01%
2014	39	1	-	2.63%	66,446	8.37%
2013	38	10	59 5 3	35.71%	61,316	65.45%
2012	28	26	-	1300.00%	37,061	863.62%
2011	2	-	(3)	0.00%	3,846	0.00%



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, 2015

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

		Men		Women
Age	Number	Compensation	Number	Compensation
16	1			
17	15		12	
18	14		13	
19	14		19	
20	18		12	
21	11		15	
22	13		11	
23	14		7	
24	22	272,589	9	
25	7		2	
26	7		5	
27	7		4	
28	7		5	
29	8		5	
30	3 2		3	
31	2		2	
32	5		4	
33	2		5	
34	4		1	
35	3		2	
36			3	
37	1			
38	1		1	
39	3			
40	2		1	
41			1	
42	1			
43	2			
44			1	
45	1		1	:
46	2		1	
47 42	1			
48 40	2 2		1	i
49 50	2		2	
50	[1	
51	4		1	



TABLE III-A

The Number And Annual Salaries Of Members In Active Service Distributed By Age As Of January 1, 2015

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

		Men			Wom	en
Age	Number	Compe	nsation	Number	Con	pensation
52	3			1		
53	3			1		
54	5			1		
55	2			3		
5 6	2					
57	1					
<mark>58</mark>	1			2		
59	4					
60	1			1		
61	2					
62	1			1		
63	2					
64	2					
65	2					
71	1					
72				1		
74	1			1		
79				1		
Total	232	\$ 2,	400,521	162	\$	1,524,69 <u>3</u>



TABLE III-B

The Number And Annual Salaries
Of Members In Active Service Distributed By
Years Of Credited Service As Of January 1, 2015

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

V		M	en		Was	
Years of Service		_			_	men
Service	Number	Co	mpensation	Number	Co	mpensation
0	8			2		
1	105	\$	714,620	67	\$	340,162
2	27		252,470	38	Ì	404,351
3	22		286,252	12	Į .	
4	6			10		
5 6	10			4	ĺ	
6	9			4		
7	8			3		
8	11			7		
9	5			4		
10	7			1		
11	5			1		
12	1			3		
13	3					
14	1			2		
15						
16	2			1		
17	1					
18	1					
19						
20				1		
21				1		
22	}					
23				1		
Total	232	\$	2,400,521	162	\$	1,524,693



TABLE III-C

The Number And Annual Benefits Payable To
Participants With Deferred Benefits
As Of January 1, 2015

		Men	Women		
Age	Number	Annuity	Number	Annuity	
16	1	\$ 16			
17	38	2,038	36	\$ 1,389	
18	78	3,586	48	1,996	
19	110	8,179	85	5,362	
20	132	13,585	118	13,386	
21	133	19,227	119	16,072	
22	178	25,908	159	22,017	
23	240	37,799	196	28,443	
24	237	40,705	188	28,877	
25	203	34,840	168	26,555	
26	188	38,245	155	27,608	
27	132	29,101	118	21,794	
28	131	43,563	75	20,557	
29	90	36,364	68	23,242	
30	65	25,164	51	29,087	
31	51	28,260	51	36,129	
32	51	21,117	38	17,122	
33	43	29,258	27	10,880	
34	35	28,965	35	25,749	
35	32	25,051	23	18,592	
36	28	15,097	20	8,610	
37	21	17,951	14	6,983	
38	17	14,007	20	10,213	
39	23	13,918	14	10,764	
40	26	15,947	9	3,323	
41	20	20,207	16	6,457	
42	14	9,460	10	5,766	
43	10	2,877	5	3,037	
44	19	13,897	10	4,507	
45	18	6,826	7	5,148	
46	26	7,828	7	4,893	
47	19	11,251	10	3,057 3,560	
48	14	6,888	10	4,969	
49	17	10,746	7 7	13,212	
50	17	8,422 9,742	11	4,266	
51	16	9,742	10	7,968	
52	18 17	14,013	11	6,076	
53	II .	4,578	10	4,452	
54	15 20	10,712	10	7,713	
55 56	20	17,013	11	5,245	



TABLE III-C

The Number And Annual Benefits Payable To Participants With Deferred Benefits As Of January 1, 2015

	Men			Women		
Age	Number		Annuity	Number		Annuity
-						
57	12	\$	0.004	_		4.00
58	18	Ψ	6,261	7	\$	1,365
59	15		9,141	8		10,399
60	19		12,342 11,029	9		4,316
61	15		11,029	7		5,861
62	14	l	10,404	7		3,798
63	17	ŀ	14,722	8		3,047
64	7		2,832	6		3,140 2,830
65	15	ŀ	4,576	1		2,630 176
66	6		1,343			170
67	6		4,286	2		1,499
68	2		490	_		1,488
69	_		400			
70	1		76			
71	2		122			
72	3		1,324			
73	3		333			
74	3		403	1		133
75	2		207			
76						
7 7			ŀ			
78				ĺ		
79	1		1			
80						
81	1		52	ĺ		
82						
83						
84	1		1	1		4
85						
86	1		431			
Total	2,729	\$	835,989	2,054	\$	541,644



TABLE III-D

The Number And Annual Benefits Payable To Participants Receiving Benefits As Of January 1, 2015

		Men			Women		
Age	Number		Annuity	Number		Annulty	
65	1	\$	1,028				
66	5	i i	9,003	2	\$	7,398	
67	5		10,979	3		7,744	
68	7		14,151	3		4,821	
69	3		4,221	2		3,273	
70	4	1	6,438	2		3,468	
71	2		2,046	1		690	
72	1	ļ		1		1,405	
73	2		3,495	1		967	
74	1		1,585				
75	1		975				
76	1						
77							
78							
79							
80	1		1,371				
Total	32	\$	55,292	15	\$	29,766	



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 (cont'd)

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 2015 is based on census and asset information as of January 1, 2014, rolled forward to January 1, 2015.

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.