GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

EDUCATIONAL EMPLOYEES' SUPPLEMENTARY RETIREMENT SYSTEM OF FAIRFAX COUNTY (ERFC)

34TH ANNUAL ACTUARIAL VALUATION

DECEMBER 31, 2013

REPORT OF THE DECEMBER 31, 2013 ACTUARIAL VALUATION
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June 23, 2014

The Board of Trustees
Educational Employees' Supplementary
Retirement System of Fairfax County
Fairfax, Virginia

Dear Board Members:

Submitted in this report are the results of our 34th annual actuarial valuation of the Educational Employees' Supplementary Retirement System of Fairfax County (ERFC), based on data as of ***December 31, 2013***.

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

The purpose of this valuation was to measure the System's funding progress and to determine actuarial information for Governmental Accounting Standards Board (GASB) Statement Nos. 25 and 27. Information related to Statements Nos. 67 and 68 will be provided under separate cover. This report should not be relied on for any purpose other than the purpose described in the primary communication.

The valuation was based upon information furnished by your Executive Director and staff, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. Their efforts in furnishing this material are acknowledged with our appreciation. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information by the aforementioned individuals.

The actuarial assumptions used in making the actuarial valuation are shown in Section G of this report. The assumptions were adopted by the Trustees following a study of experience covering the five-year period ending December 31, 2009.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic and demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of ERFC as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

The signing actuaries are independent of the plan sponsor.

Brian Murphy and Judith Kermans are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Your attention is directed particularly to:

COMMENTS on page 3;
Computed Employer Contribution Rate on page B-2;
Comparative Statement on page B-5; and
Short Condition Test on page B-7.

Respectfully submitted,

Brian B. Murphy, FSA, EA, FCA, MAAA

Judith A. Kermans, EA, FCA, MAAA

BBM/JAK:mrb

COMMENTS

Funding Policy*:** The ERFC Funding Policy, as stated in the ERFC Plan Document is "to establish and receive contributions which will remain approximately level from generation to generation of citizens and which, when combined with other assets and investment return thereon, will be sufficient to pay benefits when due, while providing a reasonable margin for adverse experience***".

Contribution Rate Policy: Actuarial valuations as of odd-numbered years, such as this valuation, are used to set the employer contribution rate for the two-year period beginning 18 months after the valuation date. The December 31, 2013 valuation is used to determine the contribution rate for the period July 1, 2015 to June 30, 2017. Actuarial valuations as of even numbered years (2012, 2014, etc.), provide an interim measure of the financial condition of ERFC and are also used for financial reporting in connection with Governmental Accounting Standards Board (GASB) Statements, in accordance with parameters specified by the GASB. For funding purposes, unfunded accrued liabilities are currently being amortized over a closed 30 year period ending on June 30, 2040. The remaining amortization period in the December 31, 2013 valuation is 25 years.

Contribution Rate: The current contribution rate (for the two-year period July 1, 2013 to June 30, 2015) is 5.60% of payroll. This rate can continue to be used for the two-year period beginning July 1, 2015. The rate is estimated to be the minimum amount needed for the two-year funding period (July 1, 2015 to June 30, 2017) based on the following assumptions: 1) investment return of 7.5% in all future years, 2) 3.75% pay increases in all future years and 3) benefit provisions remain unchanged and other plan experience is in line with expectations. The funding policy contribution of 5.60% includes a calculated rate of 5.54% for Fiscal Year 2016 plus a contingency contribution of 0.06%. If plan experience is worse than this scenario, the 5.60% rate may not be sufficient in Fiscal Year 2017. For example, the plan earns 0% in calendar year 2014, the computed contribution would need to be 5.69% of pay to ensure that the rate equals the computed value in 2017.

Plan Experience: ERFC's market value rate of return as measured by the actuary was 12.4%, which was favorable, but gains and losses from prior years are still being phased in with the asset method used for funding. Plan liabilities and payroll grew less than expected. The funded percent is now 76.7%, which is higher than last year's funded percent of 75.4%. If the market value of assets were the basis for the measurement (as opposed to the funding value with five-year smoothing of gains and losses and a 25% corridor), the funded percent would be 79.4% and the calculated rate for Fiscal Year 2016 would be 5.19% of payroll.

Financial Status: Based upon the December 31, 2013 valuation, the Fairfax County ERFC is operating in accordance with its funding policy and with actuarial principles of level percent of payroll financing. ERFC is fortunate that its long standing commitment to excellence in funding has resulted in financial strength that provides a solid basis for the future.

SECTION A

FINANCIAL PRINCIPLES

Promises Made, and Eventually Paid. As each year is completed, the plan in effect hands an "IOU" to each member then acquiring a year of service credit --- The "IOU" says: "The Educational Employees' Supplementary Retirement System of Fairfax County owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related ***key financial questions*** are:

Which generation of taxpayers contributes the money to cover the IOU?

The present taxpayers, who receive the benefit of the member's present year of service?

Or the future taxpayers, who happen to be in Fairfax County at the time the IOU becomes a cash demand?

The law governing plan financing intends that this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, ***the employer contribution rate will remain approximately level from generation to generation*** --- your children and grandchildren will contribute the same percents of active payroll you contribute now.

(There are systems which have a design for deferring contributions to future taxpayers, lured by a lower contribution rate now and putting aside the consequence that the contribution rate must then relentlessly grow much greater over decades of time --- consume now, and let your children face higher contributions after you retire.)

An inevitable by-product of the level-cost design is the accumulation of reserve assets for decades, and the income produced when the assets are invested. ***Invested assets are a by-product and not the objective***. ***Investment return*** becomes, in effect, the third contributor for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Current Cost (the cost of members' service being rendered this year)

... plus ...

Interest on Unfunded Accrued Liabilities (unfunded accrued liabilities are the difference between (i) liabilities for service already rendered and (ii) the accrued assets of the plan).

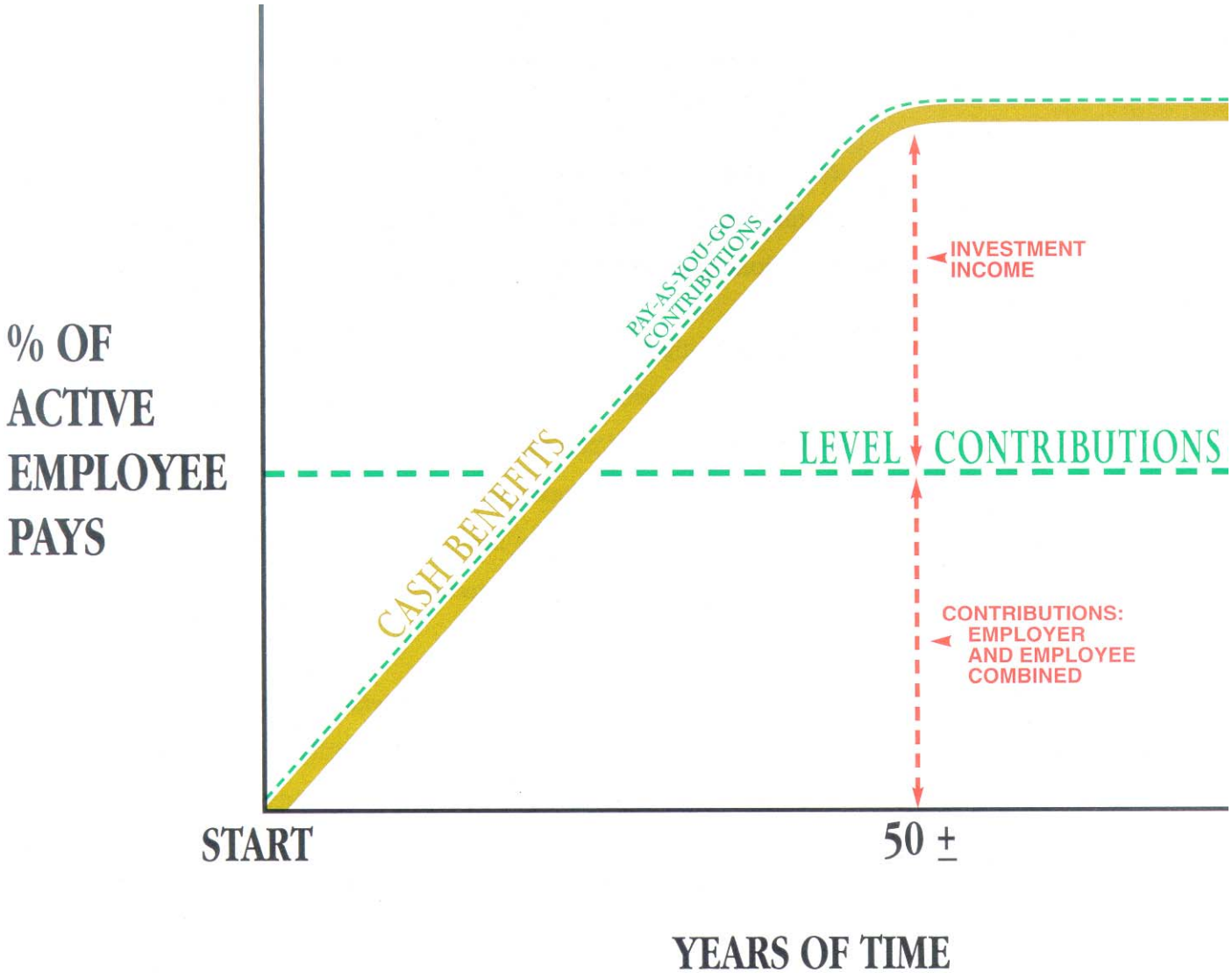
Computing Contributions to Support Plan Benefits. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of ***an actuarial valuation and a funding method***.

An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets are assumed to earn; the rates of withdrawal of active members who leave covered employment before qualifying for any monthly benefit; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement.

In preparing an actuarial valuation, assumptions must be made as to what the above rates will be for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions and regardless of the skill of the actuary and the millions of calculations made. The demographic future can be predicted with considerable but not 100% precision. However, ***inflation rates seem to defy reliable prediction***.

The plan copes with these continually changing differences by having periodic actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is ***continuing adjustments in financial position***.



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

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

- Economic Risk Areas
  - Rates of investment return
  - Rates of pay increase
  - Changes in active member group size
- Non-Economic Risk Areas
  - Ages at actual retirement
  - Rates of mortality
  - Rates of withdrawal of active members (turnover)
  - Rates of disability

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the opposite page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) and is thus an ***increasing contribution method***; and the ***level contribution method*** which equalizes contributions between the generations.

The actuarial valuation is the mathematical process by which the level contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

Covered Person Data, furnished by plan administrator
Retired lives now receiving benefits
Former employees with vested benefits not yet payable
Active employees

\+ ***Asset Data*** (cash and investments), furnished by plan administrator

\+ ***Assumptions concerning future financial experiences in various risk areas***,
which assumptions are established by the Board of Trustees after consulting with the actuary

\+ ***The funding method*** for employer contributions (the long-term, planned pattern for employer contributions)

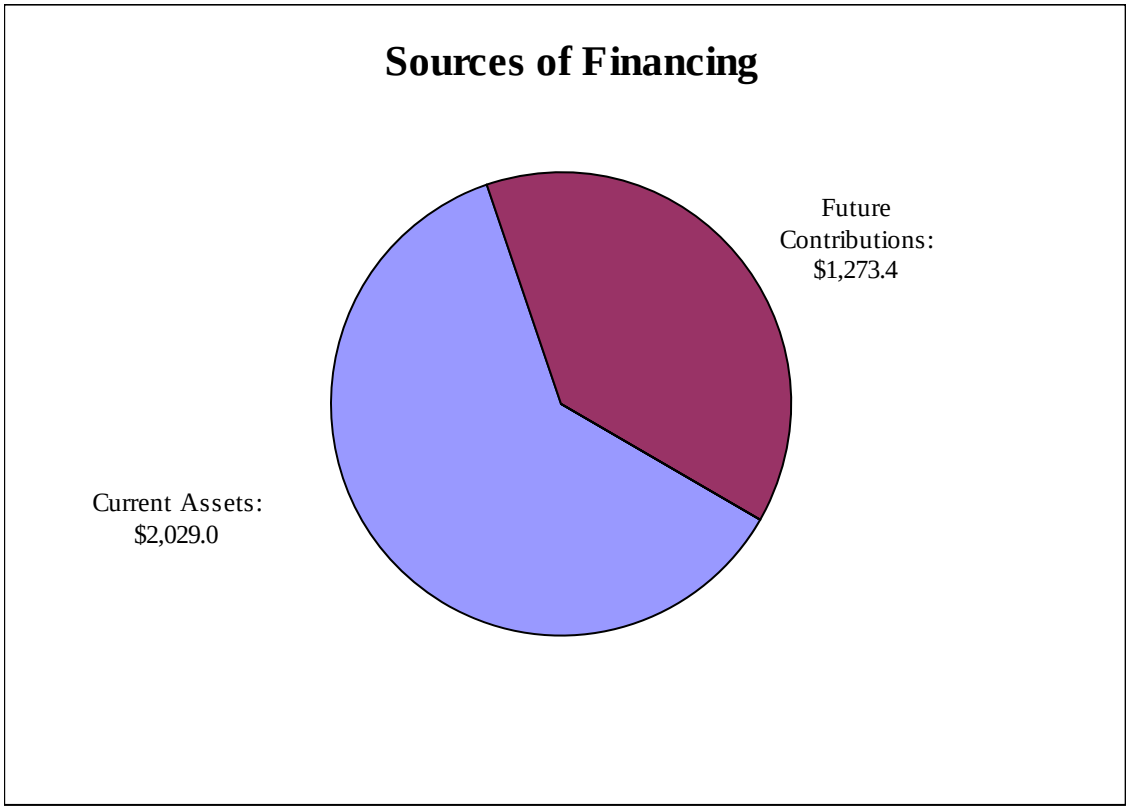
\+ ***Mathematically combining the assumptions, the funding method, and the data***

= Determination of:
Plan Financial Position
and/or ***New Employer Contribution Rate***

SECTION B

RESULTS OF THE VALUATION

FINANCING $3,302.4 MILLION OF BENEFIT PROMISES
DECEMBER 31, 2013
($ IN MILLIONS)



The pie chart above shows that the total amount of benefit promises made to members in *ERFC* and *ERFC 2001* is $3,302.4 million, based on plan assumptions as of December 31, 2013. In actuarial terms this is called the present value of future benefit payments. It represents the amount of money, shown in today's dollars, needed to pay benefits to current and future retirees based on plan assumptions. These assumptions are outlined in Section G of this report. The $3,302.4 million would be sufficient to pay promised benefits if plan members leave active employment as expected (retire, quit, etc.), and live exactly according to plan mortality assumptions. A major assumption in calculating the $3,302.4 million number is that investments earn 7.50% per year. Investment return during 2013, as measured by the actuary, was 12.4% on a market value basis.

COMPUTED EMPLOYER CONTRIBUTION RATES (AS PERCENTS OF ACTIVE MEMBER PAYROLL)

Valuation Date	December 31, 2013	December 31, 2012
Contributions for Period Ending June 30	**2016 and 2017**	**n/a**
Normal Cost (current cost):		
Service Retirement	3.91%	3.87%
Reduced Service Retirement	0.49%	0.54%
Casualty Benefits	0.10%	0.10%
Separation Benefits	1.30%	1.27%
Totals	5.80%	5.78%
Member Contributions	3.00%	3.00%
Employer Normal Cost	2.80%	2.78%
Unfunded Actuarial Accrued Liability	2.74%	2.80%
Annual Required Contribution (GASB 25)	**5.54%**	**5.58%**
Contingency Contribution	0.06%	0.02%
Funding Policy Contribution	5.60%	5.60%

Unfunded liability was amortized as a level percent of payroll over 25 years in the December 31, 2013 valuation and 26 years in the December 31, 2012 valuation. If this schedule is continued, unfunded liabilities will be fully amortized on June 30, 2040.

The Funding Policy contribution for the two-year period beginning July 1, 2015 is determined by the December 31, 2013 valuation. The contribution rate is calculated to be 5.60% of payroll (5.54% ARC plus 0.06% Contingency Contribution). This rate was estimated to be the minimum amount that would be sustainable for the period July 1, 2015 to June 30, 2017 based on the following assumptions: 1) investment return of 7.5% in all future years, 2) 3.75% pay increases in all future years and 3) benefit provisions remain unchanged and other plan experience is in line with expectations. If plan experience is worse than this scenario, the 5.60% rate might be less than the computed actuarial rate for Fiscal 2017.

CONTRIBUTION RATE HISTORY

Fiscal Year	Valuation Date Used	Employee Rate	Adopted Employer Rate		ADEC
			Support	Educational	
1991	1989	2.00%	5.08%	5.53%	
1992	1990	2.00%	5.08%	5.53%	
1993	1991	2.00%	5.08%	5.53%	
1994	1992	2.00%	5.08%	5.53%	
1995	1993	2.00%	5.08%	5.53%	
1996	1994	2.00%	5.08%	5.53%	
1997	1995	2.00%	5.58%	6.03%	
1998	1996	2.00%	5.58%	6.03%	
1999	1997	2.00%	5.58%	6.03%	
			Combined July 1, 1999		
2000	1998	2.00%	4.99%		
2001	1999	2.00%	3.69%		
2002	2000	2.00%	3.69%		
2003	2001	2.00%	4.00%		
2004	2002	2.00% / 4.00%	4.29% / 2.53%		
2005	2003	4.00%	3.37%		
2006	2004	4.00%	3.37%		
2007	2004	4.00%	3.37%		
2008	2005	4.00%	3.37%		3.37%
2009	2005	4.00%	3.37%		3.14%
2010	2007	4.00%	3.20%		2.97%
2011	2007	4.00%	4.04%		4.04%
2012	2009	4.00%	4.34%		4.16%
2013	2009	3.00%	5.34%		5.38%
2014	2011	3.00%	5.60%		5.51%
2015	2011	3.00%	5.60%		5.58%
2016	2013	3.00%	5.60%		5.54%

Notes:
1. In June of 2004, the member rate was increased to 4% and the employer rate was decreased to 2.53%.
2. The valuation date was June until 2004 when it was changed to December.
3. Rate for FY 2011 was increased to the ARC. The Funding Policy would have resulted in 3.20%.
4. On July 1, 2012, the member rate was decreased to 3.0% in conjunction with a restructuring of the VRS employee contribution rate.
5. ADEC is the Actuarially Determined Employer Contribution resulting from the Funding Policy.

ACTUARIAL ACCRUED LIABILITIES

Accrued liabilities for	Amounts at December 31	
	2013	2012
Present Active Members	$1,088,768,618	$1,057,402,350
Present Inactive Vested Members	73,960,919	60,434,450
Present Retirees and Beneficiaries	1,482,770,103	1,448,291,098
Total Actuarial Accrued Liabilities	$2,645,499,640	$2,566,127,898
Funding Value of Assets	2,029,004,521	1,935,292,175
Unfunded Actuarial Accrued Liability	$ 616,495,119	$ 630,835,723
Actuarial Funded Percent	76.70%	75.42%
Market Value Funded Percent	79.41%	74.92%

ASSETS AND LIABILITIES
COMPARATIVE STATEMENT

Valuation Date	Active Member Payroll	Computed Liabilities			Valuation Assets	Unfunded Accrued Liabilities	Funded %
		Retired	Other Members	Total			
	($ in thousands)						
2/29/1980	$ 169,924	$ 38,288	$ 138,708	$ 176,996	$ 74,173	$ 102,823	41.9%
6/30/1985	251,691	96,588	240,351	336,939	221,656	115,283	65.8%
6/30/1986@	277,545	116,773	264,611	381,384	284,195	97,189	74.5%
6/30/1987	305,051	136,073	293,170	429,243	325,127	104,116	75.7%
6/30/1988$#	340,946	163,959	343,523	507,482	359,069	148,413	70.8%
6/30/1989	369,575	203,394	357,569	560,963	405,317	155,646	72.3%
6/30/1990	411,970	240,122	404,751	644,873	461,450	183,423	71.6%
6/30/1991	451,873	285,618	432,109	717,727	510,825	206,902	71.2%
6/30/1992	447,474	318,072	445,498	763,570	563,644	199,926	73.8%
6/30/1993#@	450,530	344,160	564,207	908,367	717,701	190,666	79.0%
6/30/1994	480,995	374,849	597,230	972,079	766,480	205,599	78.8%
6/30/1995$	521,044	395,249	677,287	1,072,536	839,930	232,606	78.3%
6/30/1996	531,060	436,181	694,363	1,130,544	934,571	195,973	82.7%
6/30/1997	553,709	464,345	751,022	1,215,367	1,045,412	169,955	86.0%
6/30/1998#	582,755	490,261	788,111	1,278,372	1,194,556	83,816	93.4%
6/30/1999	626,015	539,917	805,742	1,345,659	1,365,417	(19,758)	101.5%
6/30/2000	678,937	614,739	752,632	1,367,371	1,505,231	(137,860)	110.1%
6/30/2001$	759,906	667,605	884,953	1,552,558	1,599,219	(46,661)	103.0%
6/30/2002	781,756	699,251	994,705	1,693,956	1,619,889	74,067	95.6%
6/30/2003$	866,502	903,963	868,455	1,772,418	1,597,459	174,959	90.1%
12/31/2004#	977,817	1,083,988	851,594	1,935,582	1,643,020	292,562	84.9%
12/31/2005	1,050,217	1,130,378	892,584	2,022,962	1,718,399	304,563	84.9%
12/31/2006	1,111,828	1,176,979	928,573	2,105,552	1,818,930	286,622	86.4%
12/31/2007	1,161,432	1,221,969	964,832	2,186,801	1,924,886	261,915	88.0%
12/31/2008@	1,211,140	1,237,613	1,017,685	2,255,298	1,733,946	521,352	76.9%
12/31/2009#	1,208,093	1,314,885	1,024,984	2,339,869	1,769,540	570,329	75.6%
12/31/2010@	1,191,290	1,355,093	1,028,968	2,384,061	1,822,603	561,458	76.5%
12/31/2011$	1,246,973	1,401,877	1,069,087	2,470,964	1,866,952	604,012	75.6%
12/31/2012	1,297,537	1,448,291	1,117,837	2,566,128	1,935,292	630,836	75.4%
12/31/2013	1,320,309	1,482,770	1,162,730	2,645,500	2,029,005	616,495	76.7%

@ After change in asset valuation method.
$ After change in benefits or contribution rates (member contribution rate decrease in Fiscal 2012).
 # After changes in actuarial assumptions.

ASSETS AND LIABILITIES
EXPRESSED AS PERCENTS OF ACTIVE MEMBER PAYROLL
COMPARATIVE STATEMENT

Valuation Date	Active Member Payroll ($ thousands)	As Percents of Active Member Payroll		
		Computed Liabilities	Valuation Assets	Unfunded Liabilities
2/29/1980	$ 169,924	104%	44%	61%
6/30/1985	251,691	134%	88%	46%
6/30/1986@	277,545	137%	102%	35%
6/30/1987	305,051	141%	107%	34%
6/30/1988$#	340,946	149%	105%	44%
6/30/1989	369,575	152%	110%	42%
6/30/1990	411,970	157%	112%	45%
6/30/1991	451,873	159%	113%	46%
6/30/1992	447,474	171%	126%	45%
6/30/1993#@	450,530	202%	159%	42%
6/30/1994	480,995	202%	159%	42%
6/30/1995$	521,044	206%	161%	45%
6/30/1996	531,060	213%	176%	37%
6/30/1997	553,709	219%	189%	30%
6/30/1998#	582,755	219%	205%	14%
6/30/1999	626,015	215%	218%	(3)%
6/30/2000	678,937	201%	222%	(21)%
6/30/2001$	759,906	204%	210%	(6)%
6/30/2002	781,756	217%	207%	10%
6/30/2003$	866,502	205%	184%	21%
12/31/2004#	977,817	198%	168%	30%
12/31/2005	1,050,217	193%	164%	29%
12/31/2006	1,111,828	189%	164%	25%
12/31/2007	1,161,432	188%	166%	22%
12/31/2008@	1,211,140	186%	143%	43%
12/31/2009#	1,208,093	194%	146%	48%
12/31/2010@	1,191,290	200%	153%	47%
12/31/2011$	1,246,973	198%	150%	48%
12/31/2012	1,297,537	198%	149%	49%
12/31/2013	1,320,309	200%	154%	46%

@ After change in asset valuation method.
$ After changes in benefits or contribution rates (member contribution rate decrease in Fiscal 2012).
 # After changes in actuarial assumptions.

In an inflationary economy the value of dollars is decreasing. Since observation of only the dollar amounts of key facts can be misleading, observation of relationships among key facts tells a more relevant story of the changes in financial strength. ***The smaller the ratio of unfunded liabilities to active member payroll, the stronger the system***. Observation of this relative index over a period of years indicates changes in strength. The larger the ratio of liability and assets to payroll, the greater the inherent contribution rate volatility.

SHORT CONDITION TEST

If the contributions to ERFC are level in concept and soundly executed, the System will be able to ***pay all promised benefits when due -- the ultimate test of financial soundness***. Testing for level contribution rates is ***the long-term test***. ***A short condition test*** is one means of checking a system's progress under its funding program. In a short condition test, the plan's present assets (cash and investments) are compared with:

1) Active member contributions on deposit;
2) The liabilities for future benefits to present retired lives;
3) The liabilities for service already rendered by active members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit (Liability 1) and the liabilities for future benefits to present retired lives (Liability 2) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members (Liability 3) will be partially covered by the remainder of present assets. The larger the funded portion of Liability 3, the stronger the condition of the system.

Valuation Date	Aggregate Actuarial Accrued Liabilities For (1) Member Contributions	(2) Retirees and Beneficiaries	(3) Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
	(. . . $1,000s . . .)						
6/30/1993#@	$ 115,312	$ 344,160	$448,895	$ 717,701	100%	100%	58%
6/30/1994	129,428	374,849	467,802	766,480	100%	100%	56%
6/30/1995$	143,150	395,249	534,137	839,930	100%	100%	56%
6/30/1996	146,228	436,181	548,135	934,571	100%	100%	64%
6/30/1997	144,063	464,345	606,959	1,045,412	100%	100%	72%
6/30/1998#	149,220	490,261	638,891	1,194,556	100%	100%	87%
6/30/1999	154,582	539,917	651,160	1,365,417	100%	100%	103%
6/30/2000	157,148	614,739	595,484	1,505,231	100%	100%	123%
6/30/2001$	178,564	667,605	706,389	1,599,219	100%	100%	107%
6/30/2002	170,849	699,251	823,856	1,619,889	100%	100%	91%
6/30/2003$	176,648	903,963	691,807	1,597,459	100%	100%	75%
12/31/2004#	227,725	1,083,988	623,869	1,643,020	100%	100%	53%
12/31/2005	257,142	1,130,378	635,442	1,718,399	100%	100%	52%
12/31/2006	239,780	1,176,979	688,793	1,818,930	100%	100%	58%
12/31/2007	269,404	1,221,969	695,428	1,924,886	100%	100%	62%
12/31/2008@	302,910	1,237,613	714,775	1,733,946	100%	100%	27%
12/31/2009#	342,663	1,314,885	682,321	1,769,540	100%	100%	16%
12/31/2010@	374,086	1,355,093	654,882	1,822,603	100%	100%	14%
12/31/2011$	402,847	1,401,877	666,240	1,866,952	100%	100%	9%
12/31/2012	426,609	1,448,291	691,228	1,935,292	100%	100%	9%
12/31/2013	439,310	1,482,770	723,420	2,029,005	100%	100%	15%

@ After change in asset valuation method.
$ After change in benefits or contribution rates (member contribution rate decrease in Fiscal 2012).
 # After changes in actuarial assumptions.

CHANGE IN UNFUNDED ACCRUED LIABILITIES DURING THE YEAR ENDING DECEMBER 31, 2013 ($ IN MILLIONS)

	As of December 31	
	2013	**2012**
1. UAAL* at start of year	$ 630.8	$ 604.0
2. Normal Cost (5.78% of 2013 payroll)	76.3	74.7
3. Member and employer contributions	109.0	103.9
4. Interest accrual	46.1	44.2
5. Expected UAAL before changes: (1. + 2. - 3. + 4.)	644.2	619.0
6. Change from non-recurring activities and benefit changes	-	4.0
7. Expected UAAL after changes: (5. + 6.)	644.2	623.0
8. Actual UAAL at end of year	616.5	630.8
9. Gain (loss): (7. - 8.)	**$27.7**	**$(7.8)**
Gain (loss) as percent of actuarial accrued liabilities at start of year	1.1%	(0.3)%

* *Unfunded actuarial accrued liability.*

The above schedule estimates the total gain or loss on the Retirement System activities for the year. The next page shows the breakdown of the total gain or loss by Source. Risk areas related to assumptions include Economic Risks and Demographic Risks. Economic Risks relate to Pay Increases and Investment Return. Demographic Risks relate to rates of retirement, death, disability, and other terminations. Risks not directly related to assumptions include granted additional service credit, data adjustments, timing of financial transactions, etc.

CHANGE IN UNFUNDED ACCRUED LIABILITIES
GAINS AND LOSSES BY RISK AREA
DURING THE YEAR ENDING DECEMBER 31, 2013

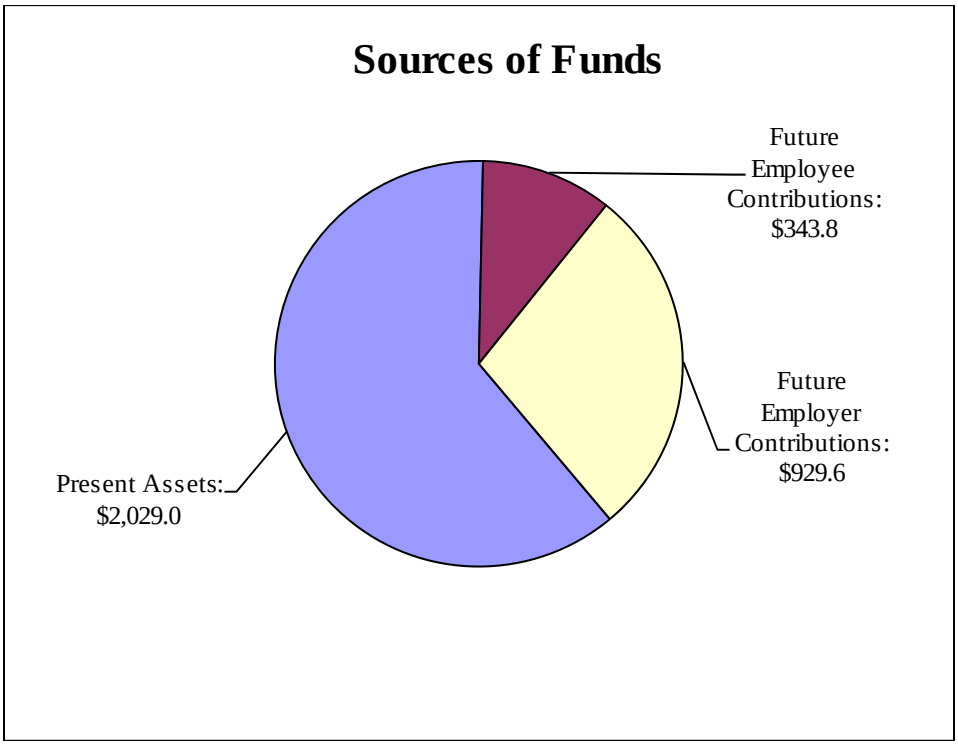
Type of Risk Area	Gain (Loss) in Period $ in millions *ERFC*	*ERFC 2001*	Totals	Percent of Liabilities
Risks Related to Assumptions				
Economic Risk Areas:				
Pay Increases	$9.2	$7.4	$ 16.6	0.6%
Investment Return			7.6	0.3%
Demographic Risk Areas:				
Full and Reduced Service Retirements	5.5	0.2	5.7	0.2%
Vested Deferred Retirements	(0.4)	4.8	4.4	0.2%
Ordinary Death Benefits	0.4	0.2	0.6	0.0%
Service-Connected Death Benefits	0.0	0.0	0.0	0.0%
Ordinary Disability Benefits	(0.3)	(0.2)	(0.5)	0.0%
Service-Connected Disability Benefits	(0.1)	0.0	(0.1)	0.0%
Terminated with Refund	(0.8)	(0.7)	(1.5)	(0.0)%
Post-Retirement Mortality	1.8	(0.1)	1.7	0.1%
Data Adjustments and Miscellaneous			(6.8)	(0.3)%
Total Gain (or Loss) During Period			**27.7**	**1.1%**
Beginning of Year Accrued Liabilities			**$ 2,566.1**	

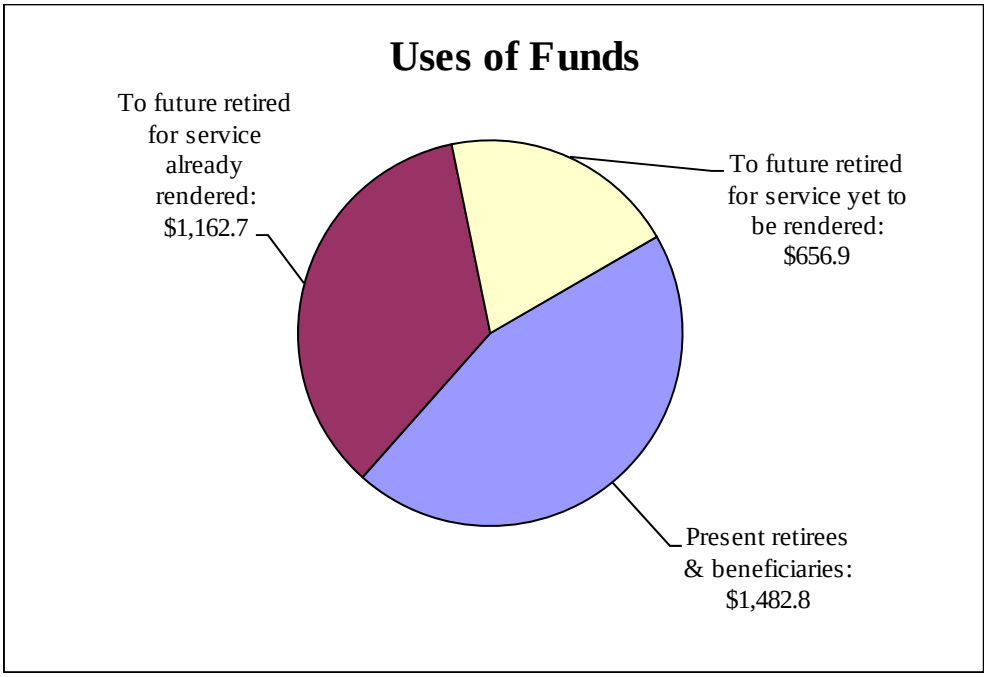
EXPERIENCE GAINS & LOSSES BY RISK AREA
COMPARATIVE STATEMENT
($ IN MILLIONS)

Experience Period	Pay Increases	Investment Return	Retirement	Disability & Death-In Service	Other Separations	Other[&]	Total Gain (Loss) $	Total Gain (Loss) Percent of Liabilities
1992-1993	$15.1	$34.6	$(16.3)	$(1.0)	$ (6.5)	$ (17.3)	$ 8.6	1.1 %
1993-1994#	(4.1)	4.7	(1.6)	(3.7)	3.5	(15.2)	(16.4)	(1.8)%
1994-1995	(9.7)	25.2	5.1	(1.4)	(4.4)	(5.5)	9.3	0.9 %
1995-1996	(7.7)	45.4	4.1	(1.8)	(5.6)	4.3	38.7	3.6 %
1996-1997	9.9	53.5	2.9	(1.7)	(4.5)	(8.7)	51.4	4.5 %
1997-1998#	(2.6)	81.1	5.9	(0.5)	6.4	(13.9)	76.4	6.3 %
1998-1999*	(8.4)	95.4	0.3	(1.0)	6.5	(3.8)	89.0	7.0 %
1999-2000	(17.6)	62.3	3.8	(1.2)	12.9	38.9	99.1	7.4 %
2000-2001	(9.1)	17.6	(0.3)	(1.0)	13.0	(19.5)	0.7	0.0 %
2001-2002	3.0	(50.4)	3.5	(1.1)	2.6	(29.9)	(72.3)	(4.7)%
2002-2003	18.5	(92.5)	11.0	(0.3)	4.0	(23.3)	(82.6)	(4.9)%
2003-2004#@								
2005	(7.1)	1.9	1.0	0.1	0.0	(3.2)	(7.3)	(0.4)%
2006	(4.7)	23.6	2.0	0.0	(0.8)	2.6	22.7	1.1 %
2007	10.0	25.1	1.9	(0.2)	(2.2)	(7.2)	27.4	1.4 %
2008	4.1	(277.5)	5.2	(0.4)	(4.0)	13.5	(259.1)	(11.8)%
2009	45.0	(34.6)	8.8	(0.8)	(10.0)	(11.6)	(3.2)	(0.1)%
2010#	53.1	(16.9)	5.2	0.2	(5.3)	(4.2)	32.1	1.4 %
2011	18.8	(30.6)	5.3	(0.2)	(4.2)	(4.8)	(15.7)	(0.7)%
2012	12.3	(10.8)	4.6	(0.3)	(3.4)	(10.2)	(7.8)	(0.3)%
2013	16.6	7.6	5.7	0.0	2.9	(5.1)	27.7	1.1 %

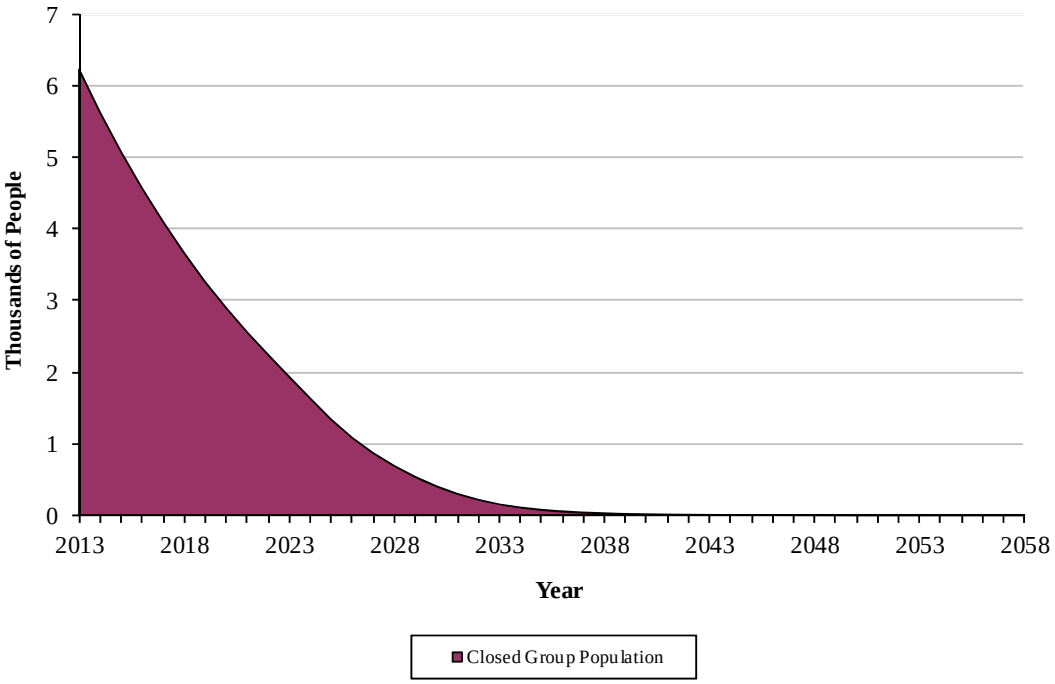
 # Experience Study.
** Updated Gain Formulas.*
@ Gain (Loss) Analysis not performed.
& Includes post-retirement mortality.

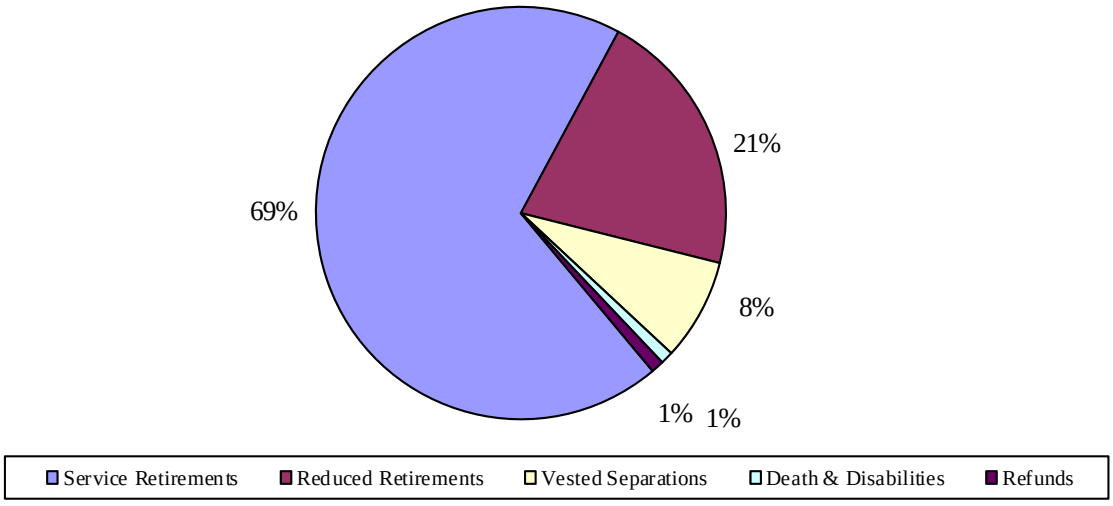
FINANCING $3,302.4 MILLION OF BENEFIT PROMISES
DECEMBER 31, 2013
($ IN MILLIONS)





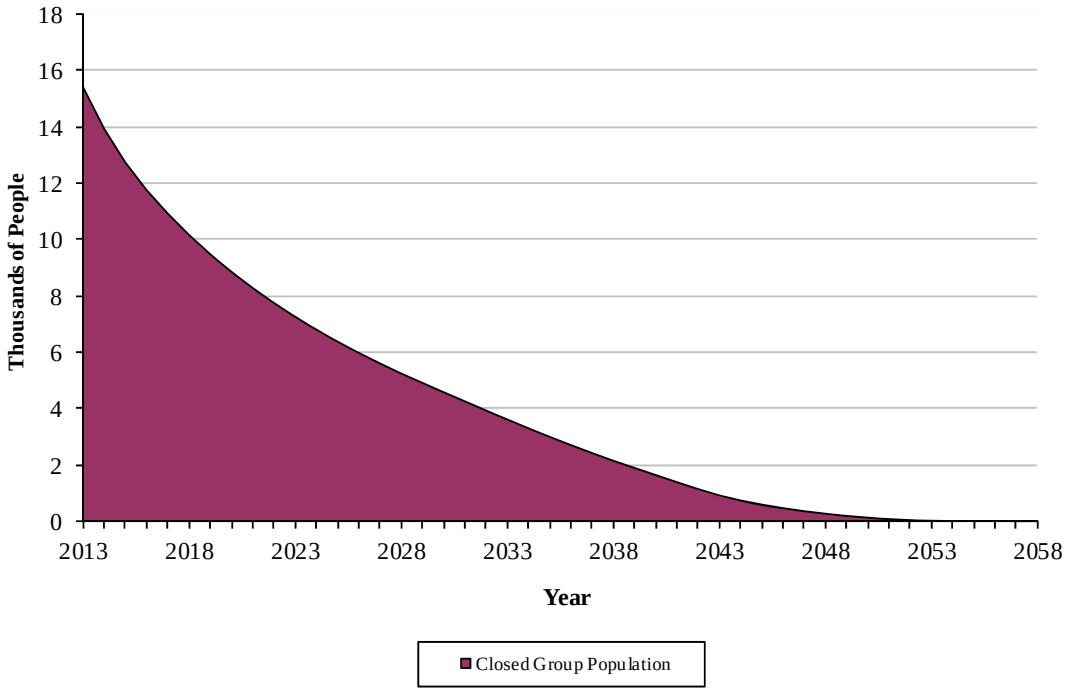
EXPECTED DEVELOPMENT OF PRESENT POPULATION – ERFC
DECEMBER 31, 2013

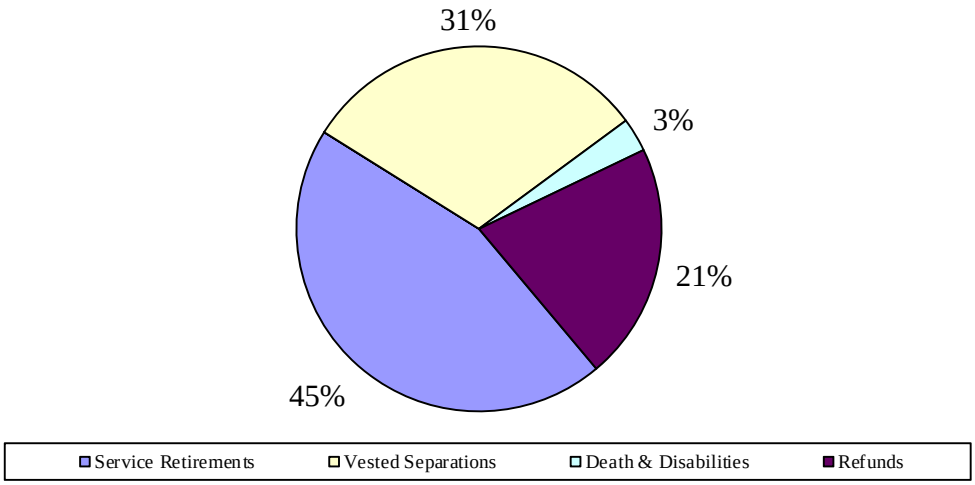




The charts show the expected future development of the present population in simplified terms. ERFC presently covers 6,221 active members. Eventually, 1% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. Approximately 98% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, or by separating from service without withdrawing contributions. 1% of the present population is expected to become eligible for death-in-service or disability benefits. Within 7 years, over half of the current membership will have left the group.

EXPECTED DEVELOPMENT OF PRESENT POPULATION – ERFC 2001
DECEMBER 31, 2013





The charts show the expected future development of the present population in simplified terms. ERFC 2001 presently covers 15,422 active members. Eventually, 21% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for an employer provided benefit. Approximately 76% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, or by separating from service without withdrawing contributions. 3% of the present population is expected to become eligible for death-in-service or disability benefits. Within 10 years, over half of the current membership will have left the group. The proportion of new hires in this plan will increase more rapidly than normal because the ERFC legacy plan is closed to new hires.

SECTION C

SUMMARY OF BENEFITS

SUMMARY OF PROVISIONS AS OF DECEMBER 31, 2013
MEMBERS HIRED AFTER JULY 1, 1988 BUT BEFORE JULY 1, 2001
ERFC

1. **Service Retirement Eligibility.** A member may retire any time after reaching the service retirement date, which is either (i) age 65 with 5 years of service or (ii) age 55 with 25 years of service.

2. **Reduced Service Retirement Eligibility.** A member with 25 years of service but younger than age 55 may retire after age 45. A member with less than 25 years of service and younger than age 65 may retire after age 55.

3. **Deferred Retirement Eligibility.** An inactive member with 5 or more years of service will be entitled to a pension with payments beginning at age 55, provided she/he does not withdraw accumulated member contributions.

4. **Death-In-Service Benefit Eligibility.** An active member with 5 or more years of service who dies will have benefits payable to the surviving spouse or other eligible beneficiary. The 5-year service requirement is waived if the death is service-connected.

5. **Disability Retirement Eligibility.** An active member with 5 or more years of service who becomes totally and permanently disabled may be retired and receive a disability pension. The 5-year service requirement is waived if the disability is service-connected.

6. **Final Average Compensation (FAC).** A member's final average compensation is the average of the 3 highest consecutive years of salary during eligible employment.

7. **Service Retirement Amount.** For payment periods during the retired member's lifetime 103% times (i) minus (ii) where:
   (i) means 1.85 percent of the FAC multiplied by years of credited service, and
   (ii) means 1.65 percent of the portion of VRS FAC in excess of $1,200, multiplied by applicable years of creditable Virginia service; provided if the member is younger than age 65 and if creditable Virginia service is less than 30 years, the result of such multiplication shall be reduced for each month before the earlier of
      (1) attainment of age 65, and
      (2) the date when 30 years of service would have been completed.

Service Retirement Amount (Continued)

The reduction shall be one-half of 1% for each of the first 60 months and four-tenths of one percent for each month beyond 60 months, if any.

For payment periods, if any, before the age the member becomes eligible for full Social Security benefits, an additional temporary benefit equal to 1.00 percent of the FAC multiplied by years of credited service.

8. **Reduced Service Retirement Amount After 25 Years Service.** Service Retirement amount reduced to reflect retirement age younger than age 55.

9. **Reduced Service Retirement Amount After 5-24 Years Service.** For payment periods during the retired member's lifetime, the Service Retirement amount payable at age 65 reduced to reflect retirement age younger than age 65. For payment periods before the age the member becomes eligible for full Social Security benefits, an additional temporary benefit equal to the Service Retirement temporary benefit reduced to reflect retirement age younger than age 65.

10. **Deferred Retirement Amount.** Calculated in the same manner as reduced service retirement.

11. **Death-In-Service Benefit Amount.** If the member is eligible for a service or reduced service retirement then an eligible named beneficiary will receive such benefits reduced based upon an Option A (in the case of a spouse or an ex-spouse subject to a DRO) or Option B (in case of another eligible beneficiary) election. If not, the eligible named beneficiary will receive an amount equal to 103% times a lifetime pension equal of 0.25% of the FAC multiplied by years of credited service, and also reduced in connection with an Option A or Option B election. Credited service shall be increased by the time period from the date of death to the date when the member would have reached service retirement with a minimum of 10 years of service used, provided the death was service-connected. If a named beneficiary is not eligible for either of these types of benefits, the named beneficiary will receive a refund of the member's accumulated contributions.

12. **Disability Retirement Amount.** The amount is 103% times a lifetime pension equal to 0.25 percent of the FAC multiplied by years of credited service. Credited service shall be increased by the time period from disability retirement to the date when the member would have reached the service retirement date. The minimum pension payable is 2.5 percent of FAC.

13. **Post-Retirement Increases.** The amount of the monthly benefit is adjusted each March 31, by 3% compounded annually, beginning with the March 31 which is more than three full months after the member's effective retirement date. Pensions of members that retire in the immediately preceding calendar year are increased by 1.489% (one-half a year's increase).

14. **Member Contributions.** Effective July 1, 2012, members contribute 3% of their salaries. Interest credits are 5% annually. If a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request. Members who receive a refund of contributions and are later rehired become members of ERFC 2001.

15. **Lifetime Level Benefit (for Retirements after July 1, 2004).** Members are eligible for a lifetime level benefit (LLB) that is calculated by determining the annuitized value of the greater of their accumulated contribution balance or the present value of the currently provided benefit.

16. **Optional Forms of Payment.**

Option A: 100% Joint and Survivor benefit. Benefit is 85% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94% of the straight life amount.

Option B: 50% Joint and Survivor benefit. Benefit is 91% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 97% of the straight life amount.

Option C: 10 years Certain and Life. Benefit is 96% of the straight life amount.

Option D: Single sum payment not exceeding member's accumulated contribution balance, plus a single life annuity actuarially reduced from the pension amount otherwise payable. Actuarial equivalent factors are described on page G-16.

SUMMARY OF PROVISIONS AS OF DECEMBER 31, 2013
ALTERNATE BENEFITS AVAILABLE TO MEMBERS WITH SOME SERVICE BEFORE JULY 1, 1988

Service Retirement: Alternate Amount After Full Social Security Age. A member with service before 7/1/88 may elect, at time of retirement, to receive an alternate benefit amount for payment periods after full Social Security age. The ***Alternative Guarantee*** amount is the amount that would have been received after the individual reached eligibility for full Social Security benefits under the Old Plan (pre – July 1, 1988) formulas. The amount is 103% of the total of:

(i) the amount payable under June 30, 1987 benefit provisions,

(ii) plus, if the retiring member is younger than full social security age and if creditable Virginia service is less than 30 years, 1.65 percent of VRS average final compensation in excess of $1,200, multiplied by years of creditable Virginia service, and further multiplied by a certain percent based upon the number of months that retirement occurs before reaching the earlier of the above two conditions; such percent is one half of one percent for each of the first 60 such months and four-tenths of one percent for each of the next 60 such months, if any.

Reduced Service Retirement: Alternate Amount with 25 Years or more Years of Service. By election at time of retirement, such a member may elect to receive 103% of the following combination of benefits:

To age 55, 2.85 percent of the 3-year average annual salary multiplied by years of credited service, then actuarially reduced to reflect retirement age younger than age 55; and

From age 55 to 65, the amount to age 55 reduced by: 1.65 percent of the portion of VRS average final compensation in excess of $1,200, multiplied by applicable years of creditable Virginia service; provided if creditable Virginia service is less than 30 years, the result of such multiplication shall be actuarially reduced for each month before the earlier of (1) attainment of age 65, and (2) the date when 30 years service would have been completed; and

From age 65 for life, the amount payable at age 65 according to June 30, 1987 provisions or the amount payable at age 65 according to July 1, 1988 provisions.

SUMMARY OF PROVISIONS AS OF DECEMBER 31, 2013
MEMBERS HIRED JULY 1, 2001 OR LATER
ERFC 2001

1. **Service Retirement Eligibility.** A member may retire at age 60 with 5 or more years of credited service, or after 30 years of credited service regardless of age.

2. **Deferred Retirement Eligibility.** Any member with 5 or more years of credited service that terminates employment prior to the service retirement date, will be eligible to receive a deferred vested pension commencing at age 60, provided accumulated contributions are left on deposit with the Plan.

3. **Death Benefit Eligibility.** Any member with 5 or more years of credited service that dies before beginning to receive a pension will have benefits payable to the named beneficiary.

4. **Final Average Compensation (FAC).** A member's final average compensation is the average of the 3 highest years of salary during eligible employment.

5. **Service Retirement Pension.** The amount is a lifetime pension equal to 0.8% (eight-tenths of one percent) of FAC at retirement multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the retirement effective date.

6. **Deferred Retirement Pension.** The amount is a lifetime pension equal to 0.8% (eight-tenths of one percent) of FAC at termination multiplied by years of credited service. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the effective retirement date.

7. **Survivor Death Benefit.** The amount is a lifetime pension equal to 0.8% (eight-tenths of one percent) of FAC multiplied by years of credited service at the date of death. If necessary, the pension will be increased to make the reserve value of the pension equal to the member's accumulated contributions as of the date of death. The pension will be adjusted in accordance with an Option A (in the case of a spouse or an ex-spouse subject to a DRO) or Option B (in case of another eligible beneficiary) election payable immediately unless the member did not reach the service retirement eligibility prior to death, in which case the pension is reduced for each month that the member was younger than age 60 on the date of death in the following manner:

    a. one-half of 1% for each of the first 60 months and four-tenths of one percent for each month beyond 60 months (the number of months used for reduction is not to exceed the difference between the member's credited service at death and 30 years).

8. **Cost-of-Living Adjustments.** The amount of the monthly benefit is adjusted each March 31, by 3% compounded annually, beginning with the March 31 which is more than three full months after the member's effective retirement date. Pensions of members that retire in the immediately preceding calendar year are increased by 1.489% (one-half a year's increase).

9. **Members' Contributions.** Effective July 1, 2012, members contribute 3% of their salaries. Interest credits are 5% annually. If a member leaves covered employment before becoming eligible to retire, accumulated contributions are returned upon request.

10. **Optional Methods of Payment.** Before the effective retirement date, a retiring member may elect one of the following options:

    Option A. 100% Joint and Survivor benefit. Benefit is 85% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 94% of the straight life amount.

    Option B. 50% Joint and Survivor benefit. Benefit is 91% of the straight life amount adjusted for the difference in age between the retiree and beneficiary. The maximum benefit is 97% of the straight life amount.

    Option C. 10 years Certain and Life. Benefit is 96% of the straight life amount.

SAMPLE BENEFIT COMPUTATION
FOR *ERFC* MEMBER RETIRING JUNE 30, 2013

Data:

A.	7/1/1958	Date of Birth
B.	7/1/2013	Effective Date
C.	7/1/1985	Membership Date
D.	28.00	ERFC Credited Service
E.	28.00	VRS Creditable Service
F.	55.00	Age
G.	Service	Retirement Type
H.	$60,000.00	3-Year Average Salary
I.	$60,000.00	5-Year Average Salary

***ERFC* Monthly Benefit Calculation**

Lifetime Portion of Full Service Benefit

J.	*ERFC* Formula Benefit: 1.85% x 28 yrs. x $60,000 =	$ 31,080.00
K.	minus VRS Adjustment of: 1.65% x 28 yrs. x ($60,000 - $1,200) x 88% = (88% is the VRS Early Service Retirement Reduction Factor for 2 years prior to the earlier of age 65 or 30 years of service)	23,905.73
L.	Sub Total	7,174.27
M.	plus additional 3% benefit adjustment	215.23
N.	Total of Lifetime Portion	7,389.50

Additional Temporary Benefit until age SSRA (Social Security Retirement Age)

O.	Temporary Benefit Formula: 1% x 28 yrs. x $60,000 =	16,800.00
P.	plus additional 3% benefit adjustment	504.00
Q.	Total of Additional Temporary Benefit	17,304.00
R.	Monthly benefit effective 06/30/2013 at age 55 payable until SSRA, (N + Q)/12 =	$ 2,057.79
S.	Monthly benefit effective 07/01/2024 at SSRA payable for life, N/12 =	$ 615.79

The above computation does not reflect the alternative "guarantee" benefit which this member might elect. Members are eligible for a Lifetime Level Benefit (LLB) that is calculated by determining the annuitized value of the greater of their accumulated contribution balance or the present value of the currently provided benefit.

SAMPLE BENEFIT COMPUTATION FOR *ERFC 2001* MEMBER

Data:

A.	07/01/1969	Date of Birth
B.	07/01/2029	Effective Date
C.	07/01/2001	Membership Date
D.	28.00	ERFC Credited Service
E.	60.00	Age
F.	Service	Retirement Type
G.	$60,000.00	3 -Year Average Salary

***ERFC 2001* Monthly Benefit Calculation**

Lifetime Monthly Benefit

ERFC 2001 Formula Benefit: 0.80% x 28 yrs. x $60,000 / 12 =	$ 1,120.00

SECTION D

FINANCIAL INFORMATION

SUMMARY OF FINANCIAL INFORMATION
DECEMBER 31, 2013

Revenues and Expenditures

	December 31	
	2013	**2012**
REVENUES:		
a. Member Contributions	$ 38,897,466	$ 44,699,941
b. Employer Contributions	70,096,330	59,160,799
c. Donated Fixed Assets	0	0
d. Investment Return		
1. Interest and Dividends	41,121,366	46,860,897
2. Net Appreciation	207,448,235	201,411,066
3. Investment Expense	(11,468,759)	(10,361,827)
4. Net Securities Lending	132,984	393,178
5. Real Estate	1,649,407	2,122,206
6. Miscellaneous	54,441	57,408
7. Total Investment Return	238,937,674	240,482,928
e. Total Revenues	347,931,470	344,343,668
EXPENDITURES:		
a. Refunds of Member Contributions	5,396,068	4,272,444
b. Retirement Benefits Paid	160,464,591	158,222,265
c. Administrative Expense	3,856,763	3,938,416
d. Total Expenditures	169,717,422	166,433,125
RESERVE INCREASE:		
Total Revenues Minus Total Expenditures	$178,214,048	$177,910,543

Market Value of Assets

	December 31	
	2013	**2012**
Invested Assets		
Bonds	$ 156,161,251	$ 154,177,044
Stocks		
a. Common	638,992,882	555,660,189
b. Preferred	2,302,307	6,911,740
Real Estate	159,270,286	151,167,727
Global Asset Allocation	313,192,302	287,893,090
Hedge Fund of Funds	166,525,089	144,682,750
Private Equity	26,884,430	21,054,072
Commingled Funds	589,399,906	563,430,919
Total Invested Assets	2,052,728,453	1,884,977,531
Short-term Investments and Cash	113,374,558	69,592,193
Receivables and Pre-Paid Expenses	3,709,072	71,086,273
Other Assets (furniture and equipment)	28,815	113,821
Total Assets	2,169,840,898	2,025,769,818
Liabilities	69,119,219	103,262,187
Net Assets	$2,100,721,679	$1,922,507,631

PORTFOLIO COMPOSITION AT MARKET VALUE

The Market Value of the Portfolio was reported to the Actuary as follows:

	Year Ended December 31			
	2013		2012	
	Value	% of Total	Value	% of Total
Bonds	$ 156,161,251	7.4 %	$ 154,177,044	8.0 %
Stocks				
a. Common	638,992,882	30.4 %	555,660,189	28.9 %
b. Preferred	2,302,307	0.1 %	6,911,740	0.4 %
Real Estate	159,270,286	7.6 %	151,167,727	7.9 %
Commingled Funds	589,399,906	28.1 %	563,430,919	29.3 %
Hedge Fund of Funds	166,525,089	7.9 %	144,682,750	7.5 %
Private Equity	26,884,430	1.3 %	21,054,072	1.1 %
Global Asset Allocation / Better Beta	313,192,302	14.9 %	287,893,090	15.0 %
Net Short-term Investments and Cash	44,255,339	2.1 %	(33,669,994)	(1.8)%
Receivables, Pre-Paid Expenses and Other	3,737,887	0.2 %	71,200,094	3.7 %
Total Assets	$2,100,721,679	100.0 %	$1,922,507,631	100.0 %

In performing an actuarial valuation, values must be determined for the assets held by the System on the valuation date. This value may be:

- Cost (or amortized costs);
- Current market value; or
- A value produced by a smoothing formula which recognizes the long-term validity of market value without overreacting to the marketplace's short-term moods.

The value used in the actuarial valuation may thus differ from the value used in the System's financial statements. This does not mean that one is "right" and the other is "wrong;" each is appropriate for the purpose for which it is used.

A smoothing formula has been in use for ERFC valuations since 1986, which in its present form is illustrated on page D-3. In the December 31, 2005 valuation, a new requirement was instituted to prevent unreasonably large differences between the market value and the funding value of assets. Currently, the recognized assets must always be between 75% and 125% of the market value (see Page D-3).

DEVELOPMENT OF FUNDING VALUE OF RETIREMENT SYSTEM ASSETS

Year Ended December 31:	2013#	2014	2015	2016	2017
A. Funding Value Beginning of Year	$1,935,292,175	$2,029,004,521			
B. Market Value End of Year	2,100,721,679				
C. Market Value Beginning of Year	1,922,507,631				
D. Non-Investment Net Cash Flow	(56,866,863)				
E. Investment Return Assumed Rate:	7.5%				
1. Market Total: B-C-D	235,080,911				
2. Amount for Immediate Recognition	143,014,406				
3. Amount for Phased-in Recognition: (E1-E2)	92,066,505				
F. Phased-in Recognition of Investment Return:					
1. Current year: 0.20 x E3	18,413,301				
2. First Prior Year	19,744,377	18,413,301			
3. Second Prior Year	(30,576,304)	19,744,377	$ 18,413,301		
4. Third Prior Year	(16,571)	(30,576,304)	19,744,377	$ 18,413,301	
5. Fourth Prior year	0	(16,571)	(30,576,302)	19,744,377	$18,413,301
6. Total Phased-In	7,564,803	7,564,803	7,581,376	38,157,678	18,413,301
G. Funding Value End of Year:					
G1. Preliminary Funding Value End of Year: A+D+E2+F6	2,029,004,521				
G2. Upper Corridor Limit: 125% x B	2,625,902,099				
G3. Lower Corridor Limit: 75% x B	1,575,541,259				
G4. Funding Value End of Year	2,029,004,521				
H. Actual/Projected Difference Between Market Value and Funding Value	71,717,158	64,152,355	56,570,979	18,413,301	0
I. Market Rate of Return	12.4%				
J. Ratio of Funding Value to Market Value	96.6%				

 # Reflects collapsing of bases for future gains and losses implemented in 2010 valuation.

The Funding Value of Assets recognizes assumed investment return (line E2) fully each year. Differences between actual and assumed investment return (line E3) are phased in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Funding Value of Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Funding Value of Assets will tend to be greater than Market Value. The Funding Value of Assets is *unbiased* with respect to Market Value. If assumed rates are exactly realized for 4 consecutive years, Funding Value will become equal to Market Value.

FUNDING VALUE HISTORY

Year Ended December 31:	2009	2010	2011#	2012#
A. Funding Value Beginning of Year	$1,733,946,104	$1,769,539,999	$1,822,603,363	$1,866,952,015
B. Market Value End of Year	1,654,434,106	1,822,537,079	1,744,597,088	1,922,507,631
C. Market Value Beginning of Year	1,387,156,883	1,654,434,106	1,822,537,079	1,744,597,088
D. Non-Investment Net Cash Flow	(57,646,288)	(60,475,118)	(59,521,663)	(58,633,969)
E. Investment Return Assumed Rate:	7.5%	7.5%	7.5%	7.5%
E1. Market Total: B-C-D	324,923,511	228,578,091	(18,418,328)	236,544,512
E2. Amount for Immediate Recognition	127,884,222	130,447,683	134,463,190	137,822,627
E3. Amount for Phased-in Recognition: (E1-E2)	197,039,289	98,130,408	(152,881,518)	98,721,885
F. Phased-in Recognition of Investment Return:				
F1. Current year: 0.20 x E3	39,407,858	19,626,082	(30,576,304)	19,744,377
F2. First Prior Year	(99,172,171)	39,407,858	(16,571)	(30,576,304)
F3. Second Prior Year	1,550,155	(99,172,171)	0	(16,571)
F4. Third Prior Year	21,678,875	1,550,155	0	0
F5. Fourth Prior year	1,891,244	21,678,875	0	0
F6. Total Recognized Investment Gain or Loss	(34,644,039)	(16,909,201)	(30,592,875)	(10,848,498)
G. Funding Value End of Year:				
G1. Preliminary Funding Value End of Year: A+D+E2+F6	1,769,539,999	1,822,603,363	1,866,952,015	1,935,292,175
G2. Upper Corridor Limit: 125% x B	2,068,042,633	2,278,171,349	2,180,746,360	2,403,134,539
G3. Lower Corridor Limit: 75% x B	1,240,825,580	1,366,902,809	1,308,447,816	1,441,880,723
G4. Funding Value End of Year	1,769,539,999	1,822,603,363	1,866,952,015	1,935,292,175
H. Actual/Projected Difference Between Market Value and Funding Value	(115,105,893)	(66,284)	(122,354,927)	(12,784,544)
I. Market Rate of Return	23.9%	14.1%	(1.0)%	13.8%
J. Ratio of Funding Value to Market Value	107.0%	100.0%	107.0%	100.7%

 # Reflects collapsing of bases for future gains and losses implemented in 2010 valuation.

SECTION E

COVERED MEMBER DATA

ERFC MEMBERS
WOMEN ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	Years of Service to Valuation Date							Totals		Average
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	No.	Salary	
30-34		1	4					5	$ 282,299	$56,460
35-39	3	25	230	63				321	22,432,214	69,882
40-44	13	61	241	301	44			660	50,708,820	76,832
45-49	13	31	217	218	173	42	2	696	54,325,131	78,053
50-54	4	29	225	231	186	152	19	846	65,413,627	77,321
55-59	4	19	271	327	233	145	48	1,047	79,030,959	75,483
60		2	56	73	43	19	7	200	14,810,614	74,053
61		2	64	61	56	25	8	216	15,775,830	73,036
62	1	3	57	68	23	32	12	196	14,504,240	74,001
63		2	41	58	47	11	10	169	12,883,347	76,233
64			32	61	31	25	10	159	12,169,760	76,539
65		1	23	46	38	14	5	127	9,064,664	71,375
66	1	1	20	32	17	12	5	88	6,238,253	70,889
67		2	11	18	16	13	2	62	4,406,532	71,073
68			4	7	14	4	1	30	2,500,499	83,350
69			6	11	6	4		27	1,850,470	68,536
70			4	5	5	2	2	18	1,347,125	74,840
71			3	6	4	3	3	19	1,455,919	76,627
72					2	3	3	8	560,921	70,115
73			1	3	3		3	10	661,295	66,130
74				4	1			5	244,679	48,936
75 & Over				3	2	3	2	10	625,445	62,545
Totals	**39**	**179**	**1,510**	**1,596**	**944**	**509**	**142**	**4,919**	**$371,292,643**	**$75,481**

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

Age: 53.3 years
Service: 18 years
Annual Pay: $75,481

ERFC MEMBERS
MEN ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	Years of Service to Valuation Date							Totals		Average
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	No.	Salary	
30-34			2					2	$ 100,656	$50,328
35-39		4	67	15				86	6,660,415	77,447
40-44	1	3	99	134	21			258	21,538,111	83,481
45-49	2	1	77	125	84	6		295	25,269,083	85,658
50-54	1	3	56	74	73	60	6	273	24,285,659	88,958
55-59			44	49	37	39	14	183	16,658,741	91,031
60			7	11	5	5	3	31	2,639,048	85,131
61			10	6	12	5	4	37	3,466,714	93,695
62			7	10	6	3	1	27	2,295,089	85,003
63			3	8	3	2	4	20	1,597,252	79,863
64			9	7	3	3	1	23	1,982,508	86,196
65			4	7	5	4	1	21	1,881,204	89,581
66			4	2	3			9	822,543	91,394
67			3	4				7	489,797	69,971
68			3	3	1			7	679,225	97,032
69			3		4			7	599,335	85,619
70			2		2		1	5	409,415	81,883
71			4	2				6	464,379	77,397
72				1				1	91,801	91,801
73			1					1	67,333	67,333
74			1			1		2	141,456	70,728
75 & Over				1				1	36,704	36,704
Totals	**4**	**11**	**406**	**459**	**259**	**128**	**35**	**1,302**	**$112,176,468**	**$86,157**

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

Age: 50.4 years
Service: 18.4 years
Annual Pay: $86,157

ERFC 2001 MEMBERS
WOMEN ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	Years of Service to Valuation Date							Totals		Average
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	No.	Salary	
15-19	1							1	$ 18,632	$18,632
20-24	616							616	26,817,158	43,534
25-29	2,258	267	1					2,526	124,437,125	49,263
30-34	1,080	1,140	145					2,365	129,226,405	54,641
35-39	514	567	324					1,405	82,291,853	58,571
40-44	608	452	209					1,269	72,052,578	56,779
45-49	590	486	160					1,236	64,713,130	52,357
50-54	499	574	258					1,331	67,682,791	50,851
55-59	280	426	280					986	53,967,094	54,733
60	36	66	71					173	10,043,693	58,056
61	27	58	35					120	6,421,873	53,516
62	14	62	34					110	6,484,641	58,951
63	12	34	33					79	4,480,545	56,716
64	12	46	29					87	5,098,493	58,603
65	10	31	24					65	3,633,742	55,904
66	6	19	9					34	1,682,076	49,473
67	4	10	9					23	1,389,650	60,420
68	2	7	3					12	639,962	53,330
69	3	9	4					16	784,594	49,037
70		5	3					8	569,446	71,181
71	3	3	2					8	393,391	49,174
72		3						3	95,709	31,903
Totals	**6,575**	**4,265**	**1,633**					**12,473**	**$662,924,581**	**$53,149**

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

Age: 39.5 years
Service: 5.1 years
Annual Pay: $53,149

ERFC 2001 MEMBERS
MEN ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	Years of Service to Valuation Date							Totals		Average
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	No.	Salary	
20-24	83							83	$ 3,100,721	$37,358
25-29	429	30						459	21,343,612	46,500
30-34	305	290	33					628	34,024,097	54,178
35-39	157	209	137					503	30,689,250	61,012
40-44	116	127	102					345	22,533,010	65,313
45-49	80	125	72					277	19,308,844	69,707
50-54	82	109	49					240	16,112,402	67,135
55-59	58	80	50					188	12,651,943	67,298
60	7	18	9					34	2,244,670	66,020
61	6	23	3					32	2,191,097	68,472
62	10	9	7					26	1,553,988	59,769
63	9	12	7					28	1,863,261	66,545
64	8	14	4					26	1,433,771	55,145
65	2	11	7					20	1,354,257	67,713
66	6	5	7					18	995,896	55,328
67	3	7	3					13	824,468	63,421
68	1	2						3	185,616	61,872
69	3	2	1					6	332,996	55,499
70		2	4					6	385,932	64,322
71		3						3	195,593	65,198
72		4						4	237,140	59,285
73	1	2						3	134,744	44,915
75 & Over		2	2					4	217,508	54,377
Totals	**1,366**	**1,086**	**497**					**2,949**	**$173,914,816**	**$58,974**

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

Age: 40 years
Service: 5.6 years
Annual Pay: $58,974

ALL ACTIVE MEMBERS IN VALUATION DECEMBER 31, 2013
BY ATTAINED AGE AND YEARS OF SERVICE

Age Group	Years of Service to Valuation Date							Totals		Average
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	No.	Salary	
15-19	1							1	$ 18,632	$18,632
20-24	699							699	29,917,879	42,801
25-29	2,687	297	1					2,985	145,780,737	48,838
30-34	1,385	1,431	184					3,000	163,633,457	54,544
35-39	674	805	758	78				2,315	142,073,732	61,371
40-44	738	643	651	435	65			2,532	166,832,519	65,890
45-49	685	643	526	343	257	48	2	2,504	163,616,188	65,342
50-54	586	715	588	305	259	212	25	2,690	173,494,479	64,496
55-59	342	525	645	376	270	184	62	2,404	162,308,737	67,516
60	43	86	143	84	48	24	10	438	29,738,025	67,895
61	33	83	112	67	68	30	12	405	27,855,514	68,779
62	25	74	105	78	29	35	13	359	24,837,958	69,187
63	21	48	84	66	50	13	14	296	20,824,405	70,353
64	20	60	74	68	34	28	11	295	20,684,532	70,117
65	12	43	58	53	43	18	6	233	15,933,867	68,386
66	13	25	40	34	20	12	5	149	9,738,768	65,361
67	7	19	26	22	16	13	2	105	7,110,447	67,719
68	3	9	10	10	15	4	1	52	4,005,302	77,025
69	6	11	14	11	10	4		56	3,567,395	63,703
70		7	13	5	7	2	3	37	2,711,918	73,295
71	3	6	9	8	4	3	3	36	2,509,282	69,702
72		7		1	2	3	3	16	985,571	61,598
73	1	2	2	3	3		3	14	863,372	61,669
74			1	4	1	1		7	386,135	55,162
75 & Over		2	2	4	2	3	2	15	879,657	58,644
Totals	**7,984**	**5,541**	**4,046**	**2,055**	**1,203**	**637**	**177**	**21,643**	**$1,320,308,508**	**$61,004**

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

	ERFC	ERFC 2001	Total
Age:	52.7 years	39.6 years	43.4 years
Service:	18.1 years	5.2 years	8.9 years
Annual Pay:	$77,716	$54,263	$61,004

ACTIVE MEMBERS BY YEARS OF SERVICE
DECEMBER 31, 2013

Service Years	Number of Members			Annual Pays	
	Males	Females	Total	Total	Average
0	346	1,677	2,023	$ 92,190,383	$45,571
1	351	1,615	1,966	94,861,193	48,251
2	303	1,503	1,806	90,016,647	49,843
3	222	1,081	1,303	66,951,275	51,382
4	148	738	886	45,782,006	51,673
5	173	862	1,035	56,788,316	54,868
6	206	975	1,181	64,784,725	54,856
7	223	888	1,111	64,227,548	57,811
8	254	905	1,159	68,902,246	59,450
9	241	814	1,055	64,994,525	61,606
10	195	662	857	56,190,242	65,566
11	173	580	753	49,501,935	65,740
12	170	709	879	60,590,671	68,931
13	188	640	828	56,926,644	68,752
14	177	552	729	52,213,771	71,624
15	121	488	609	44,134,249	72,470
16	99	340	439	32,988,910	75,146
17	74	308	382	29,911,763	78,303
18	77	196	273	22,342,847	81,842
19	88	264	352	28,917,121	82,151
20	92	238	330	27,250,726	82,578
21	43	176	219	18,514,754	84,542
22	36	160	196	16,684,746	85,126
23	52	213	265	23,013,703	86,844
24	36	157	193	16,867,968	87,399
25	32	159	191	16,617,616	87,003
26	21	100	121	11,001,925	90,925
27	29	92	121	11,480,740	94,882
28	25	99	124	11,855,170	95,606
29	21	59	80	7,382,779	92,285
30 & Up	35	142	177	16,421,364	92,776
Totals	**4,251**	**17,392**	**21,643**	**$1,320,308,508**	**$61,004**

PERSONS IN VALUATIONS - COMPARATIVE STATEMENT

Active Members

Valuation Date	Number			Average Pay	Annual Increase In Average Pay		Price Inflation (CPI-U)
	ERFC	*ERFC 2001*	Total		Last Year	Last 5 Years	Last Year
2/28/1974	7,429		7,429	$13,087			
2/28/1975	8,075		8,075	13,693			
2/28/1976	8,609		8,609	15,929			
2/29/1980	8,990		8,990	18,901			
6/30/1983	9,359		9,359	24,104			
6/30/1985	9,596		9,596	26,229			
6/30/1986	10,084		10,084	27,523	4.9 %		1.8 %
6/30/1987	10,560		10,560	28,887	5.0 %		3.7 %
6/30/1988	10,727		10,727	31,784	10.0 %		4.0 %
6/30/1989	11,019		11,019	33,540	5.5 %		5.2 %
6/30/1990	11,539		11,539	35,702	6.4 %	6.4 %	4.7 %
6/30/1991	12,313		12,313	36,699	2.8 %	5.9 %	4.7 %
6/30/1992	12,308		12,308	36,356	(0.9)%	4.7 %	3.1 %
6/30/1993	12,330		12,330	36,539	0.5 %	2.8 %	3.0 %
6/30/1994	12,873		12,873	37,365	2.3 %	2.2 %	2.5 %
6/30/1995	13,287		13,287	39,215	5.0 %	1.9 %	3.0 %
6/30/1996	13,110		13,110	40,508	3.3 %	2.0 %	2.8 %
6/30/1997	13,473		13,473	41,098	1.5 %	2.5 %	2.3 %
6/30/1998	13,806		13,806	42,210	2.7 %	2.9 %	1.7 %
6/30/1999	14,449		14,449	43,326	2.6 %	3.0 %	2.0 %
6/30/2000	15,050		15,050	45,112	4.1 %	2.8 %	3.7 %
6/30/2001	15,955		15,955	47,628	5.6 %	3.3 %	3.2 %
6/30/2002	15,363	711	16,074	48,635	2.1 %	3.4 %	1.1 %
6/30/2003	13,934	3,804	17,738	48,850	0.4 %	3.0 %	2.1 %
12/31/2004	11,856	6,864	18,720	52,234	6.9 %	3.8 %	3.3 %
12/31/2005	10,895	8,186	19,081	55,040	5.4 %	4.1 %	3.4 %
12/31/2006	10,065	9,306	19,371	57,396	4.3 %	3.8 %	2.5 %
12/31/2007	9,350	10,249	19,599	59,260	3.2 %	4.0 %	4.1 %
12/31/2008	8,791	10,940	19,731	61,383	3.6 %	4.7 %	0.1 %
12/31/2009	8,417	11,474	19,891	60,736	(1.1)%	3.1 %	2.7 %
12/31/2010	7,900	12,241	20,141	59,148	(2.6)%	1.4 %	1.5 %
12/31/2011	7,353	13,623	20,976	59,448	0.5 %	0.7 %	3.0 %
12/31/2012	6,801	14,718	21,519	60,297	1.4 %	0.3 %	1.7 %
12/31/2013	6,221	15,422	21,643	61,004	1.2 %	(0.1)%	1.5 %

PERSONS IN VALUATIONS - COMPARATIVE STATEMENT

Retired Lives

Valuation Date	Number	Average Annual Benefit	Total Benefits	Active Member Payroll	Total Benefits as % of Payroll
2/28/1974	-	-	-	$ 97,221,025	
2/28/1975	195	$ 3,463	$ 675,344	110,571,258	0.61%
2/28/1976	456	3,270	1,491,310	137,131,905	1.09%
2/29/1980	1,012	4,238	4,288,395	169,924,320	2.52%
6/30/1983	1,448	5,136	7,437,571	225,592,433	3.30%
6/30/1985	1,823	6,220	11,339,462	251,691,261	4.51%
6/30/1986	2,047	6,614	13,539,032	277,545,288	4.88%
6/30/1987	2,232	7,007	15,639,820	305,050,734	5.13%
6/30/1988	2,425	7,629	18,502,289	340,945,603	5.43%
6/30/1989	2,679	8,671	23,230,719	369,574,756	6.29%
6/30/1990	2,932	9,354	27,428,027	411,970,032	6.66%
6/30/1991	3,209	10,146	32,559,349	451,872,668	7.21%
6/30/1992	3,311	10,960	36,289,308	447,473,936	8.11%
6/30/1993	3,486	11,307	39,417,339	450,530,273	8.75%
6/30/1994	3,775	11,285	42,600,996	480,995,439	8.86%
6/30/1995	3,927	11,529	45,274,131	521,044,021	8.69%
6/30/1996	4,225	11,843	50,036,473	531,060,397	9.42%
6/30/1997	4,478	11,908	53,322,514	553,709,472	9.63%
6/30/1998	4,773	12,156	58,018,744	582,754,912	9.96%
6/30/1999	5,113	12,383	63,312,850	626,015,364	10.11%
6/30/2000	5,344	13,201	70,548,074	678,937,233	10.39%
6/30/2001	5,766	13,167	75,922,636	759,905,510	9.99%
6/30/2002	6,375	13,645	86,985,606	781,756,005	11.13%
6/30/2003	6,729	14,493	97,522,562	866,501,799	11.25%
12/31/2004	7,430	14,767	110,029,000	977,817,281	11.25%
12/31/2005	7,710	15,077	116,242,812	1,050,216,544	11.07%
12/31/2006	8,029	15,370	123,402,840	1,111,827,576	11.10%
12/31/2007	8,354	15,598	130,307,079	1,161,431,668	11.22%
12/31/2008	8,595	15,631	134,346,260	1,211,140,009	11.09%
12/31/2009	8,772	15,697	137,692,304	1,208,092,606	11.40%
12/31/2010	9,081	15,677	142,366,660	1,191,290,190	11.95%
12/31/2011	9,467	15,707	148,697,364	1,246,973,240	11.92%
12/31/2012	9,788	15,594	152,634,070	1,297,536,507	11.76%
12/31/2013	10,156	15,193	154,304,935	1,320,308,508	11.69%

Total benefits as a % of payroll are much higher than total contributions as a % of payroll. This is an expected condition in a well-funded plan such as ERFC.

	Average			
	Age at Retirement	Monthly Benefit		Service Credit
		All Retirees	2013 Retirees	2013 Retirees
ERFC Legacy	58.5	$1,302.58	$1,357.09	22.0
ERFC 2001	63.7	328.18	370.42	8.6

ORIGINAL BENEFIT FORMULAS (BEFORE JULY 1, 1988)
RETIREES AND BENEFICIARIES DECEMBER 31, 2013
BY TYPE OF BENEFIT BEING PAID

Type of Pension Being Paid	No.	Annual Amounts		
		Payable for Life	Temporary Supplement	Current Benefits
Age and Service - Normal:				
Straight Life	480	$ 8,028,001		$ 8,028,001
Optional Forms	20	379,953		379,953
Age and Service - Early:				
Straight Life	339	3,799,871	$52,539	3,852,410
Optional Forms	16	249,987		249,987
Age and Service Totals	855	12,457,812	52,539	12,510,351
Duty Disability:				
Straight Life	7	220,055		220,055
Non-Duty Disability				
Straight Life	40	400,542		400,542
Age and Service Survivor Beneficiary, Duty Death, and Non-Duty Death	49	481,840		481,840
Other Totals	96	1,102,437		1,102,437
Total Benefits	**951**	**$13,560,249**	**$52,539**	**$13,612,788**

BENEFIT FORMULAS (EFFECTIVE JULY 1, 1988)
RETIREES AND BENEFICIARIES DECEMBER 31, 2013
BY TYPE OF BENEFIT BEING PAID

Type of Pension Being Paid	No.	Annual Amounts		
		Payable for Life	Temporary Supplement	Current Benefits
Age and Service - Normal:				
Straight Life	4,286	$61,295,082	$28,488,175	$ 89,783,257
Optional Forms	597	8,212,309	4,473,077	12,685,386
Age and Service - Early:				
Straight Life	3,414	17,355,764	15,234,307	32,590,071
Optional Forms	261	1,421,446	1,290,026	2,711,472
Age and Service Totals	8,558	88,284,601	49,485,585	137,770,186
Duty Disability:				
Straight Life	13	48,474		48,474
Optional Forms	1	1,875		1,875
Non-Duty Disability:				
Straight Life	133	525,805	17,793	543,598
Optional Forms	14	50,892		50,892
Age and Service Survivor Beneficiary, Duty Death, and Non-Duty Death	106	603,465	177,158	780,623
Other Totals	267	1,230,511	194,951	1,425,462
Total Benefits	**8,825***	**$89,515,112***	**$49,680,536**	**$139,195,648**

* *Includes benefits split in DROs.*

BENEFIT FORMULAS (EFFECTIVE JULY 1, 2001)
RETIREES AND BENEFICIARIES DECEMBER 31, 2013
BY TYPE OF BENEFIT BEING PAID

Type of Pension Being Paid	No.	Annual Amounts
Age and Service - Normal:		
Straight Life	321	$1,268,996
Optional Forms	53	209,654
Age and Service - Early:		
Straight Life		
Optional Forms		
Age and Service Totals	374	1,478,650
Duty Disability:		
Straight Life		
Optional Forms		
Non-Duty Disability:		
Straight Life		
Optional Forms		
Age and Service Survivor:		
Beneficiary, Duty Death, and Non-Duty Death	6	17,849
Other Totals	6	17,849
Total Benefits	**380**	**$1,496,499**

ORIGINAL BENEFIT FORMULAS (BEFORE JULY 1, 1988)
RETIREES AND BENEFICIARIES DECEMBER 31, 2013
CURRENT ANNUAL BENEFITS - TABULATED BY ATTAINED AGES

Attained Ages	No.	Annual Amount
58	1	$ 1,927
60	4	19,872
61	2	5,556
62	3	20,785
63	3	25,155
64	2	9,729
65	2	21,304
67	1	30,792
68	3	47,670
69	2	20,904
70	2	15,710
71	2	20,721
72	5	57,844
73	3	36,468
74	15	176,579
75	23	327,032
76	38	620,844
77	44	896,066
78	62	1,226,811
79	54	1,094,439
80-84	256	4,471,395
85-89	257	3,181,862
90 & Up	167	1,283,323
Total	**951**	**$13,612,788**

BENEFIT FORMULAS (EFFECTIVE JULY 1, 1988)
RETIREES AND BENEFICIARIES DECEMBER 31, 2013
CURRENT ANNUAL BENEFITS - TABULATED BY ATTAINED AGES

Attained Ages	No.	Annual Amount
Under 40	3	$ 8,573
40-44	5	26,433
45	1	5,027
46	1	15,115
47	1	835
48	3	28,181
49	2	30,979
50	9	48,626
51	8	129,618
52	7	102,918
53	9	239,599
54	16	486,984
55	70	1,589,731
56	114	2,901,156
57	156	3,642,700
58	194	4,271,980
59	232	5,595,034
60	253	6,096,159
61	325	7,650,607
62	381	8,756,860
63	445	10,007,138
64	494	12,232,176
65	612	13,865,542
66	641	7,750,468
67	563	6,005,762
68	438	4,568,316
69	451	5,119,350
70-74	1,782	19,842,435
75-79	1,053	12,469,209
80 & Up	556	5,708,137
Totals*	**8,825**	**$139,195,648**

** Includes benefits split in DROs.*

ERFC 2001
RETIREES AND BENEFICIARIES DECEMBER 31, 2013
CURRENT ANNUAL BENEFITS - TABULATED BY ATTAINED AGES

Attained Ages	No.	Annual Amount
Under 40	1	$ 2,562
46	1	2,982
56	1	1,790
57	1	3,433
60	20	78,606
61	29	109,841
62	34	122,678
63	34	131,654
64	31	137,140
65	46	192,216
66	55	226,686
67	40	160,353
68	27	114,420
69	15	52,582
70-74	36	136,439
75-79	8	20,700
80 & Up	1	2,417
Totals	**380**	**$1,496,499**

ORIGINAL BENEFIT FORMULAS (BEFORE JULY 1, 1988)
INACTIVE VESTED MEMBERS DECEMBER 31, 2013
ANNUAL DEFERRED BENEFITS - BY ATTAINED AGES

Attained Ages	No.	Annual Amount
60	2	$ 4,077
61	5	9,689
62	3	8,717
63	3	5,623
64	1	2,320
Totals*	**14**	**$30,426**

* *In addition, there are 10 members whose accumulated contributions exceed the present value of their estimated future benefits. Liabilities for these members were set equal to their accumulated contributions.*

BENEFIT FORMULAS (EFFECTIVE JULY 1, 1988)
INACTIVE VESTED MEMBERS DECEMBER 31, 2013
ANNUAL DEFERRED BENEFITS - BY ATTAINED AGES

Attained Ages	No.	Annual Amount
33	1	$ 1,137
34	2	3,234
35	35	88,977
36	59	139,771
37	77	183,614
38	74	156,722
39	102	184,157
40	92	176,287
41	104	228,589
42	113	290,007
43	121	281,391
44	107	261,101
45	97	279,355
46	100	297,758
47	82	193,190
48	88	219,694
49	73	180,068
50	77	246,977
51	73	229,705
52	60	208,893
53	64	192,155
54	69	347,546
55	36	149,829
56	40	143,115
57	29	120,638
58	32	122,986
59	30	157,666
60	28	114,002
61	30	118,075
62	21	94,687
63	22	127,949
64	19	92,596
65 & Up	28	58,892
Totals	**1,985**	**$5,690,763**

ERFC 2001
INACTIVE VESTED MEMBERS DECEMBER 31, 2013
ANNUAL DEFERRED BENEFITS - BY ATTAINED AGES

Attained Ages	No.	Annual Amount
27	10	$ 34,110
28	14	46,563
29	35	119,860
30	60	221,016
31	82	313,012
32	127	481,458
33	133	523,949
34	135	506,443
35	105	407,395
36	73	247,968
37	63	230,645
38	53	178,647
39	46	150,227
40	44	151,033
41	29	109,417
42	38	119,423
43	24	71,612
44	23	71,950
45	23	72,965
46	26	86,084
47	19	57,866
48	16	50,595
49	21	53,718
50	17	36,757
51	22	62,013
52	23	55,805
53	26	75,905
54	24	78,358
55	26	77,352
56	27	98,671
57	38	138,003
58	29	82,850
59	31	119,350
60	12	28,041
61	5	18,136
62	8	25,330
63	4	9,955
64	2	7,794
65 & Over	7	15,876
Totals	**1,500**	**$5,236,152**

SECTION F

FINANCIAL REPORTING UNDER GASB REQUIREMENTS

This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.

FINANCIAL REPORTING IN COMPLIANCE WITH GOVERNMENTAL ACCOUNTING STANDARDS BOARD (GASB) REQUIREMENTS

The provisions of GASB Statement No. 25 became effective for periods beginning after June 15, 1996. This Statement established financial reporting standards for defined benefit ***plans.*** (GASB Statement No. 27, which is effective for periods beginning after June 15, 1997 establishes standards for the financial reports of state and local governmental ***employers*** with regard to pension expense and related liabilities, as well as required supplementary information.)

Defined benefit plan reporting under Statement No. 25 will include two financial statements with notes and two required schedules with notes. In response, the following exhibits appear on the next several pages:

- **Statement of Reported Plan Assets** Available for Benefits (page F-2) provides information about the market value of plan assets by investment category.
- **Statement of Changes in Reported Plan Assets** Available for Benefits (page F-3) shows a reconciliation of beginning-of-year market value with the end-of-year market value.

The relevant notes to the financial statements are on page F-4.

- **The Schedule of Funding Progress** (page F-5) shows the most recent history of the actuarial value of assets, actuarial accrued liability, their relationship, and the relationship of the unfunded actuarial accrued liability to payroll.
- **The Schedule of Employer Contributions** (page F-6) provides a history of the Annual Required Contribution (ARC) and a year-by-year comparison of the ARC to the actual contributions.

A summary of actuarial methods and assumptions completes the Statement No. 25 information on page F-7.

A development of the Annual Pension Cost (APC) and the Net Pension Obligation under GASB Statement No. 27 is found on page F-8.

New GASB standards starting in the 2014 Fiscal Year will be provided under separate cover.

STATEMENT OF REPORTED PLAN ASSETS

	December 31	
	2013	**2012**
Assets		
Cash and short-term investments		
Cash	$ 2,843,802	$ 2,484,449
Cash with fiscal agent	665,361	1,927,763
Cash collateral for securities on loan	66,498,968	24,034,973
Short-term investments	43,366,427	41,145,008
Prepaid assets	0	0
Total cash & short-term investments	113,374,558	69,592,193
Receivables		
Interest and dividends	2,858,816	2,811,926
Securities sold	850,256	68,274,347
Miscellaneous accounts receivable	0	0
Total Receivables	3,709,072	71,086,273
Investments at fair value		
US Government obligations	15,163,916	3,274,416
Mortgage-backed securities	3,933,979	9,147,224
Domestic corporate bonds	79,583,384	87,076,066
International and convertible bonds	57,479,972	54,679,338
Common stock	638,992,882	555,660,189
Preferred stock	2,302,307	6,911,740
Global asset allocation / better beta	313,192,302	287,893,090
Real estate	159,270,286	151,167,727
Hedge fund of funds	166,525,089	144,682,750
Private equity	26,884,430	21,054,072
Commingled funds - bonds	386,013,418	372,856,730
Commingled funds - equity	203,386,488	190,574,189
Total Investments	2,052,728,453	1,884,977,531
Other Assets (Furniture and equip. net of accum. deprec.)	28,815	113,821
Total Assets	2,169,840,898	2,025,769,818
Liabilities		
Accounts payable	254,859	6,914
Securities purchased	2,365,392	79,220,300
Securities lending collateral	66,498,968	24,034,973
Total Liabilities	69,119,219	103,262,187
Net Assets held in trust for pension benefits (a schedule of funding progress is presented on page F-5)	$2,100,721,679	$1,922,507,631

STATEMENT OF CHANGES IN REPORTED PLAN ASSETS

	Reconciliation as of December 31	
	2013	2012
Additions		
Contributions		
Employer	$ 70,096,330	$ 59,160,799
Plan members	38,897,466	44,699,941
Donated fixed assets	0	0
Total Contributions	108,993,796	103,860,740
Investment Income		
Net appreciation in fair value of investments	207,448,235	201,411,066
Interest and dividends	41,121,366	46,860,897
Real estate	1,649,407	2,122,206
Net securities lending	132,984	393,178
Miscellaneous	54,441	57,408
Total Investment Income	250,406,433	250,844,755
Less: Investment Expenses	11,468,759	10,361,827
Net Investment Income	238,937,674	240,482,928
Total Additions	347,931,470	344,343,668
Deductions		
Benefits	160,464,591	158,222,265
Refunds	5,396,068	4,272,444
Administrative expense	3,856,763	3,938,416
Total Deductions	169,717,422	166,433,125
Net increase/(decrease)	178,214,048	177,910,543
Net Assets held in trust for pension benefits		
Beginning of year	$1,922,507,631	$1,744,597,088
End of year	$2,100,721,679	$1,922,507,631

Membership information as of December 31, 2013, the date of the latest actuarial valuation, is as follows:

Retirees and beneficiaries	10,156
Inactive members	3,509
Active members	21,643
Total	**35,308**

Plan Description

The ERFC is a single employer defined benefit pension plan that provides service, reduced service, disability, and death benefits to plan members and their beneficiaries. Annual post-retirement cost-of-living increases of 3% are effective each March 31.

Contributions

Plan members contribute 3% of pay effective July 1, 2012. The employer's Funding Policy provides for periodic employer contributions based upon a fundamental financial objective of having rates of contribution which remain relatively level from generation to generation of employees. To determine the employer contribution rates and to assess the extent to which the fundamental financial objective is being achieved, ERFC has actuarial valuations prepared annually. In preparing those valuations, the entry age actuarial cost method is used to determine normal cost and actuarial accrued liabilities (see page G-2 for further details).

Unfunded actuarial accrued liabilities are amortized by level percent-of-payroll contributions over a period of future years not in excess of 30. As of December 31, 2013, the remaining amortization period is 25 years.

On the basis of the December 31, 2013 actuarial valuation, the Annual Required Employer Contribution for Fiscal 2016 determined in accordance with GASB Statement No. 25 for accounting purposes was determined to be 5.54% of payroll as follows:

1) Normal Cost	5.80%
2) Accrued Liability	2.74%
3) Total	8.54%
4) Member Contribution	3.00%
5) Annual Required Contribution	5.54%

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS
(DOLLAR AMOUNTS IN THOUSANDS)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b) - (a)] / (c)
6/30/93	$ 717,701	$ 908,367	$ 190,666	79.01 %	$ 450,530	42.32 %
6/30/94#	766,480	972,079	205,599	78.85 %	480,995	42.74 %
6/30/95	839,930	1,072,536	232,606	78.31 %	521,044	44.64 %
6/30/96	934,572	1,130,544	195,972	82.67 %	531,060	36.90 %
6/30/97	1,045,412	1,215,367	169,955	86.02 %	553,709	30.69 %
6/30/98	1,194,556	1,282,615	88,059	93.13 %	582,755	15.11 %
6/30/98#	1,194,556	1,278,372	83,816	93.44 %	582,755	14.38 %
6/30/99	1,510,953	1,345,659	(165,294)	112.28 %	626,015	-
6/30/00	1,505,231	1,367,371	(137,860)	110.08 %	678,937	-
6/30/01$	1,599,219	1,552,558	(46,661)	103.01 %	759,906	-
6/30/02	1,619,889	1,693,956	74,067	95.63 %	781,756	9.47 %
6/30/03$	1,597,459	1,772,418	174,959	90.13 %	866,502	20.19 %
12/31/04#	1,643,020	1,935,582	292,562	84.89 %	977,817	29.92 %
12/31/05	1,718,399	2,022,962	304,563	84.94 %	1,050,217	29.00 %
12/31/06	1,818,930	2,105,552	286,622	86.39 %	1,111,828	25.78 %
12/31/07	1,924,886	2,186,801	261,915	88.02 %	1,161,432	22.55 %
12/31/08*	1,733,946	2,255,298	521,352	76.88 %	1,211,140	43.05 %
12/31/09#	1,769,540	2,339,869	570,329	75.63 %	1,208,093	47.21 %
12/31/10*	1,822,603	2,384,061	561,458	76.45 %	1,191,290	47.13 %
12/31/11$	1,866,952	2,470,964	604,012	75.56 %	1,246,973	48.44 %
12/31/12	1,935,292	2,566,128	630,836	75.42 %	1,297,537	48.62 %
12/31/13	2,029,005	2,645,500	616,495	76.70 %	1,320,309	46.69 %

 # After Experience Study.
$ After change in benefit structure (member contribution rate decrease in Fiscal 2012).
** After changes in actuarial assumptions and/or methods.*

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Plan Year Ended June 30	Annual Required Contribution	Percent Contributed
2004	$37,331,203	100%
2005	32,198,596	100%
2006	34,648,918	100%
2007	36,644,001	100%
2008	38,334,140	100%
2009	37,281,658	107%
2010	35,146,816	108%
2011	47,118,111	100%
2012	50,738,815	104%
2013	68,242,010	99%

The figures on this page show the actual employer contribution required for compliance with Governmental Accounting Standards (GASB Statement No. 25). A figure of 100% in the "Percent Contributed" column means that the employer contribution complied with Governmental Accounting Standards. The figures are prepared in draft form for review by the auditor.

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	December 31, 2013
Actuarial cost method	Individual entry age actuarial cost method (see page G-2)
Amortization method	Level percent of payroll
Remaining amortization period	25 years
Asset valuation method	5-year smoothed market 75%/125% corridor
Actuarial assumptions	
Investment rate of return*	7.50%
Projected salary increase*	3.75 - 9.05%
* *Includes wage inflation at*	3.75%
Cost-of-living adjustments	3.00%

DETERMINATION OF ANNUAL PENSION COST (APC) AND NET PENSION OBLIGATION (NPO) UNDER GOVERNMENTAL ACCOUNTING STANDARDS BOARD STATEMENT NO. 27

Fiscal Year Ended June 30	ARC (Annual Required ER Conts)	Interest on Prior Year's NPO	ARC Adjustment (NPO Amort)	Net Change to ARC	APC (Annual Pension Cost)	Actual ER Contribution	Change in NPO	New NPO (NPA) Balance
2009	$ 37,281,658	$ 0	$ 0	$ 0	$37,281,658	$40,012,480	$(2,730,822)	$(2,730,822)
2010	35,146,816	(204,812)	(174,046)	(30,766)	35,116,050	37,868,623	(2,752,573)	(5,483,395)
2011	47,118,111	(411,255)	(313,771)	(97,484)	47,020,627	47,118,111	(97,484)	(5,580,879)
2012	50,738,815	(418,566)	(325,538)	(93,028)	50,645,787	52,934,245	(2,288,458)	(7,869,337)
2013	68,242,010	(590,200)	(468,431)	(121,769)	68,120,241	67,734,634	385,607	(7,483,730)

The figures above are prepared in draft form for review and approval by the auditor. Please let us know if there are any audit adjustments.

SECTION G

ACTUARIAL ASSUMPTIONS & MISCELLANEOUS

SUMMARY OF
ASSUMPTIONS USED FOR ERFC ACTUARIAL VALUATION
ASSUMPTIONS ADOPTED BY BOARD OF TRUSTEES
AFTER CONSULTING WITH ACTUARY

The actuarial assumptions used in making the valuation are shown in this Section of the report. The assumptions were established for the December 31, 2010 actuarial valuation, based upon a study of experience during the period January 1, 2005 to December 31, 2009.

ECONOMIC ASSUMPTIONS

The investment return rate used in making the valuation was 7.5% per year, compounded annually (net after administrative expenses). The real rate of return over wages or the "spread" is defined to be the portion of total investment return which is more than the wage inflation rate. Based upon an assumed wage inflation rate of 3.75%, the 7.5% investment return rate translates to an ***assumed real rate of return over wages of 3.75%***. The assumed real return over prices would be higher.

Pay increase assumptions for individual active members are shown by years of service on page G-9. Part of the pay increase assumption is for merit and/or seniority increase, and the other 3.75% recognizes price inflation and real wage growth.

Price Inflation: No explicit price inflation assumption is needed for this valuation.

The number of active members is assumed to continue at the present number.

Total active member payroll is assumed to increase 3.75% annually in the long term, which is the portion of the individual pay increase assumptions attributable to wage inflation. This assumed increase is recognized in the funding of unfunded actuarial accrued liabilities.

NON-ECONOMIC ASSUMPTIONS

The mortality table used to measure active and retired life mortality was the 1994 Group Annuity Mortality Table set back 3 years for males and 3 year for females. Related values are shown on page G-6 along with the rates used for disabled mortality. Overall, these rates do not include a margin for future improvement.

The probabilities of retirement for members eligible to retire are shown on page G-7.

The probabilities of withdrawal from service, ***death-in-service*** and ***disability*** are shown for sample ages on page G-8.

The individual entry age actuarial cost method of valuation was used for determining actuarial accrued liabilities and normal cost. The method determines separate normal costs for *ERFC* and for *ERFC 2001* and blends the results together to produce the normal costs shown on page B-2. This means that in the long run, the normal cost will become the normal cost of *ERFC 2001*, which is slightly higher than the blended figure shown on page B-2.

Unfunded actuarial accrued liabilities are amortized to produce contribution amounts (principal and interest) which are level percent of payroll contributions.

Present assets (cash and investments) are valued on a market-related basis effective June 30, 1986. Page D-3 provides specifics. A one-time adjustment toward market was made in connection with the 1990-93 experience study and an additional one-time adjustment set the funding value equal to the market value as of December 31, 2004. An 85%-115% market value corridor was added in the December 31, 2005 valuation. This was adjusted to 75% - 125% in the December 31, 2008 valuation, as requested by the Board.

The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

Adopted: March 21, 2006
Amended: May 28, 2009
Amended: May 17, 2012
Amended: June 27, 2013
Amended: May 29, 2014

ERFC REGULATIONS – FUNDING POLICY AND EMPLOYER CONTRIBUTION RATE

(Applicable to *ERFC* and *ERFC 2001*)

Pursuant to their authority under §15.03 of the *ERFC* Plan Document and §10.03 of the *ERFC 2001* Plan Document, the Trustees have adopted the following regulations governing determination of the Employer contribution rate and implementation of the funding policy pursuant to §§3.05 and 16.03 of the *ERFC* Plan Document and §§3.05 and 11.03 of the *ERFC 2001* Plan Document.

16.03A Purpose of Regulations. The funding policy of the Plan is stated in §16.03 of the *ERFC* Plan Document and §11.03 of the *ERFC 2001* Plan Document. That policy is "to establish and receive contributions which will remain approximately level from generation to generation of citizens and which, when combined with other assets and investment return thereon, will be sufficient to pay benefits when due, while providing a reasonable margin for adverse experience." Section 3.05 in each Plan Document provides that the employer "shall contribute a percentage of each Member's Salary, at a rate to be determined by the actuary in accordance with the funding policy set forth in [this Plan Document]." Within the broader context of the stated funding policy, the objectives of the Trustees are:

(1) To make consistent progress toward 100% funding of the Plan and to maintain 100% funding once it has been attained;

(2) To stabilize the Employer contribution rate and avoid sharp increases or decreases due to specific events or short-term conditions; and

(3) To maintain the Plan's funding in accordance with actuarial standards of practice that apply to public sector plans and with applicable federal, state, and local laws and regulations.

16.03B Frequency of Actuarial Valuations. The actuary shall prepare annual actuarial valuations based upon calendar-year data. Whenever possible, the valuation for a particular year should be presented to the Trustees within the first 120 days of the following calendar year.

16.03C Schedule for Setting the Employer Contribution Rate. The Trustees will determine the Employer contribution rate biennially, in consultation with the actuary, based upon the actuarial valuation for the most recently completed calendar year. The rate shall be set and communicated to the Employer at least 9 months in advance of the effective date so that it will be available for use in the Employer's budgetary process. Each rate shall remain in effect for two consecutive Fiscal Years. For example, a rate will be set in accordance with this schedule based on the actuarial valuation as of December 31, 2013. It will become effective July 1, 2015, and will remain in effect through June 30, 2017.

16.03D The Employer Contribution Rate. The Employer contribution rate will be set at a level that is expected to:

(1) pay all normal costs accruing under the Plan during the Fiscal Years for which the rate is effective; and
(2) amortize any unfunded liabilities over a reasonable period.

16.03E The Amortization Period for Unfunded Liabilities. In the biennial determination of the Employer contribution rate, the amortization period for unfunded liabilities will be set within the parameters permitted by actuarial standards of practice that apply to public sector plans and by applicable federal, state, or local laws and regulations, and shall, if permitted, be based upon level percent of pay. If those standards, laws, and regulations and the other principles stated in Paragraphs 16.03A and 16.03D permit, the amortization period for unfunded liabilities shall be set with the objective that the Plan will be 100% funded by June 30, 2040. In conjunction with actuarial valuations dated December 31, 2019 and later, the Trustees may elect to create a new 20-year amortization schedule for unfunded liabilities arising during that valuation and subsequent valuations, and to continue the amortization of preexisting unfunded liabilities to their scheduled end date. In order to stabilize contributions, the Trustees may from time to time elect to combine separate amortization schedules into a single schedule over the average remaining amortization period being used. Unfunded liabilities associated with benefit changes or assumption changes shall be funded over a period not exceeding 10 years. However, unfunded liabilities arising in conjunction with early retirement incentive programs offered by the Employer after 2013 shall be separately funded over a period not exceeding five future years and shall not be subject to the combining of amortization schedules mentioned elsewhere in this Paragraph 16.03E.

16.03F The Valuation of Plan Assets. The actuarial value of Plan assets shall be determined as a 5-year smoothed market value of assets. The smoothing technique shall fully recognize the assumed return each year. It shall further spread the difference between the actual return and the assumed return in equal installments over the current year and four future years. In the event that the method would result in an actuarial value of assets that is less than 75% of market value or more than 125% of market value, the actuarial value of assets shall be reset to 75% of market value or 125% of market value, as the case may be, and the total difference between market and actuarial value shall be spread over four future years. Based upon consultation with the actuary, the Trustees may combine bases in order to reset the actuarial value to be equal to the market value when the difference between market value and actuarial value is 5% or less of market value.

16.03G The Valuation of Plan Liabilities. The actuarial liabilities of the Plan shall be determined using the entry age actuarial cost method, and an investment return assumption chosen by the Trustees in conjunction with the Plan actuary and investment consultant. The investment return assumptions shall be based upon the long term expected return on assets, although the Trustees may take other factors into account when determining this assumption. The Trustees shall also adopt other assumptions necessary for the valuation based upon the advice of the actuary and the judgment of the Trustees. The Trustees shall cause a study of actuarial experience under the Plan to be performed at least once in each five-year period and shall adjust all assumptions accordingly as deemed necessary for prudent operation of the Plan.

16.03H Overfunding. In the event that the Plan's assets exceed the Plan's liabilities, all amortization schedules other than those related to any post-2013 early retirement incentive programs offered by the Employer shall be considered completed, and the Employer contribution rate will be set based upon the normal cost and the completion of any remaining amortizations due to post-2013 early retirement incentive programs offered by the Employer, without regard to such overfunding. In such event, the Trustees shall review the Plan's asset allocation with a view toward de-risking the portfolio and potentially lowering the investment return assumption. Should such de-risking of the portfolio or future unfavorable experiences cause the unfunded liabilities to arise again, such liabilities shall be funded over a closed period of 20 future years, and shall otherwise be subject to the regulations set forth in Paragraph 16.03E.

SINGLE LIFE RETIREMENT VALUES

STANDARD MORTALITY

Sample Attained Ages	Present Value of $1 Monthly for Life Increasing 3.0% Annually		Percent Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women	Men	Women
55	$187.03	$201.44	0.3213%	0.1734%	28.85	32.99
60	169.63	185.77	0.5581%	0.2919%	24.39	28.31
65	150.45	167.93	1.0147%	0.5832%	20.18	23.82
70	130.51	148.72	1.8034%	1.0764%	16.37	19.65
75	110.33	128.05	2.8481%	1.6506%	12.98	15.78
80	89.95	106.03	4.5171%	2.8366%	9.96	12.22
Ref:	261 x 1.00	262 x 1.00				
	sb 3	sb 3				

DISABLED MORTALITY

Sample Attained Ages	Present Value of $1 Monthly for Life Increasing 3.0% Annually		Percent Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women	Men	Women
55	$128.18	$144.69	3.3740%	2.6550%	17.14	20.34
60	118.67	135.13	4.2210%	2.9790%	15.18	18.04
65	110.09	124.28	4.7460%	3.3300%	13.46	15.71
70	99.71	111.14	5.1730%	3.6990%	11.60	13.27
75	86.55	94.59	5.8940%	4.4280%	9.55	10.66
80	70.31	76.55	7.8960%	6.7140%	7.37	8.16
Ref:	309 x 0.70	310 x 0.90				
	sb 0	sb 0				

PROBABILITIES OF RETIREMENT FOR MEMBERS ELIGIBLE TO RETIRE

	Hired Before 7/1/2001		Hired on or After 7/1/2001		
	Type of Retirement		Age		Service
Ages	Service	Reduced Service	Based	Service	Based
45		2.0%			
46		2.0%			
47		2.0%			
48		2.0%			
49		2.0%			
50		2.0%			
51		3.0%			
52		6.0%			
53		8.0%			
54		8.0%			
55	45.0%	9.0%	22.5%	30	22.5%
56	35.0%	4.0%	17.5%	31	17.5%
57	25.0%	4.0%	12.5%	32	12.5%
58	25.0%	4.0%	12.5%	33	12.5%
59	25.0%	4.0%	12.5%	34	12.5%
60	30.0%	8.0%	15.0%	35	15.0%
61	35.0%	9.0%	17.5%	36	17.5%
62	35.0%	15.0%	17.5%	37	17.5%
63	30.0%	18.0%	15.0%	38	35.0%
64	25.0%	18.0%	12.5%	39	50.0%
65	25.0%		12.5%	40 & Up	100.0%
66	25.0%		12.5%		
67	25.0%		25.0%		
68	25.0%		25.0%		
69	20.0%		20.0%		
70	20.0%		20.0%		
71	20.0%		20.0%		
72	20.0%		20.0%		
73	30.0%		30.0%		
74	30.0%		30.0%		
75	100.0%		100.0%		
76	100.0%		100.0%		
77	100.0%		100.0%		
78	100.0%		100.0%		
79	100.0%		100.0%		
80	100.0%		100.0%		
Ref:	1891	1893	1892		1894

The age column index does not apply to the service based retirements. In *ERFC 2001* an individual can retire at 30 years of service regardless of age.

SAMPLE RATES OF SEPARATION FROM ACTIVE EMPLOYMENT BEFORE RETIREMENT

Ages	Years of Service	% of Active Members Separating within Next Year									
		Death				Disability					
		Ordinary		Duty		Ordinary		Duty		Other	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
25	4 & Up	0.02%	0.01%	0.00%	0.00%	0.03%	0.02%	0.01%	0.00%	11.20%	15.40%
30		0.03%	0.01%	0.00%	0.00%	0.03%	0.02%	0.01%	0.01%	7.60%	11.20%
35		0.03%	0.02%	0.00%	0.00%	0.05%	0.04%	0.01%	0.01%	5.40%	7.60%
40		0.04%	0.02%	0.00%	0.00%	0.07%	0.06%	0.02%	0.02%	3.80%	4.20%
45		0.05%	0.03%	0.01%	0.00%	0.10%	0.09%	0.03%	0.02%	3.00%	3.00%
50		0.08%	0.04%	0.01%	0.01%	0.17%	0.15%	0.04%	0.04%	2.00%	3.00%
55		0.13%	0.07%	0.02%	0.01%	0.29%	0.25%	0.07%	0.06%	3.20%	4.20%
60		0.22%	0.12%	0.03%	0.01%	0.49%	0.35%	0.12%	0.09%	4.00%	5.00%
Ref:		0.40 x 261	0.40 x 262	0.05 x 261	0.05 x 262					669	670
		sb 3	sb 3	sb 3	sb 3	0.16 x 16	0.16 x 17	0.04 x 16	0.04 x 17	1153	1154

Rates of separation for members with less than 4 years of service are assumed to be: 16% in the first year for both men and women, 13% in the second and third years for men, and 14% in the second and third years for women.

SAMPLE PAY INCREASE ASSUMPTIONS FOR AN INDIVIDUAL MEMBER

Pay Increase Assumption			
Service Index	**Merit & Seniority**	**Base (Economy)**	**Increase Next Year**
1	5.30%	3.75%	9.05%
2	3.80%	3.75%	7.55%
3	3.30%	3.75%	7.05%
4	3.10%	3.75%	6.85%
5	2.90%	3.75%	6.65%
6	2.70%	3.75%	6.45%
7	2.70%	3.75%	6.45%
8	2.30%	3.75%	6.05%
9	2.10%	3.75%	5.85%
10	1.80%	3.75%	5.55%
11	1.80%	3.75%	5.55%
12	1.80%	3.75%	5.55%
13	1.80%	3.75%	5.55%
14	1.80%	3.75%	5.55%
15	1.80%	3.75%	5.55%
16	1.80%	3.75%	5.55%
17	1.80%	3.75%	5.55%
18	1.80%	3.75%	5.55%
19	1.80%	3.75%	5.55%
20	1.00%	3.75%	4.75%
21	1.00%	3.75%	4.75%
22	1.00%	3.75%	4.75%
23	1.00%	3.75%	4.75%
24	1.00%	3.75%	4.75%
25	0.00%	3.75%	3.75%
Ref:	386	3.75%	

RATES OF FORFEITURE FOLLOWING VESTED SEPARATION

Age at Separation	Sample Entry Age				
	25	30	35	40	45
30	0.5000				
31	0.4750				
32	0.4500				
33	0.4250				
34	0.4000				
35	0.3750	0.5000			
36	0.3500	0.4667			
37	0.3250	0.4333			
38	0.3000	0.4000			
39	0.2750	0.3667			
40	0.2500	0.3333	0.5000		
41	0.2250	0.3000	0.4500		
42	0.2000	0.2667	0.4000		
43	0.1750	0.2333	0.3500		
44	0.1500	0.2000	0.3000		
45	0.1250	0.1667	0.2500	0.5000	
46	0.1000	0.1333	0.2000	0.4000	
47	0.0750	0.1000	0.1500	0.3000	
48	0.0500	0.0667	0.1000	0.2000	
49	0.0250	0.0333	0.0500	0.1000	
50	0.0000	0.0000	0.0000	0.0000	0.0000

Forfeiture occurs when a vested person separates from service and withdraws contributions thereby forfeiting future rights to an employer financed benefit. The total probability of forfeiture is obtained by multiplying the probability of "other separation" from page G-8 by the probability of forfeiture from this table. The table does not apply to individuals who are eligible for retirement at time of termination.

Investment Return and Inflation: Past and Future

Inflation Distortions

Inflation's impact on investment return is not uniform from year to year. A common expectation for real return (which is the portion of total investment return remaining after price inflation) is in the range of 3% to 5% annually.

Historical Economic Data

Over the last 30 years, real return exceeded that range on average. However, for parts of this period, it was actually negative. It is very difficult to maintain a long-term portfolio allocation during periods of negative real return.

Annual Total Investment Return (including Income) for Asset Classes and Sample Funds expressed as Real Return (Remainder after Price Inflation)

No. Years Ended December	Price Inflation (CPI)	Cash Equiv. (T Bills)	Bonds (Long Term) US Treasury	Bonds (Long Term) Corporate (Sol. Bro.)	Stocks (S & P 500)	Sample Fund A	Sample Fund B	Sample Fund C
1/2009	2.7	(2.5)	(17.1)	0.3	23.2	1.7	8.0	13.1
1/2010	1.5	(1.4)	8.5	10.7	13.4	9.7	10.4	11.0
1/2011	3.0	(2.9)	24.5	14.6	(0.9)	11.2	7.1	3.8
1/2012	1.7	(1.6)	1.6	8.8	14.1	7.2	8.9	10.4
1/2013	1.5	(1.5)	(12.7)	(8.5)	30.4	2.7	10.8	17.1
5/1980	9.2	(1.3)	(6.9)	(6.2)	4.3	(2.6)	(0.4)	1.3
5/1985	4.8	5.2	11.5	12.3	9.4	10.7	10.2	9.8
5/1990	4.1	2.6	6.4	6.1	8.6	6.7	7.2	7.6
5/1995	2.8	1.5	10.0	9.1	13.4	10.0	10.8	11.3
5/2000	2.5	2.6	4.9	3.2	15.4	7.7	10.0	11.7
5/2005	2.5	(0.4)	5.1	6.6	(2.0)	3.4	2.0	0.7
5/2010	2.2	0.0	3.3	3.6	0.1	3.1	2.6	2.0
5/2012	1.8	(1.4)	7.4	8.5	(0.1)	5.7	4.2	2.8
5/2013	2.1	(2.0)	(0.2)	4.8	15.5	6.4	9.0	11.0
30/2013	**2.8**	**1.2**	**6.4**	**6.4**	**8.1**	**6.9**	**7.3**	**7.4**

Sample Funds (only three of many reasonable samples)

	A	B	C
Cash: T-Bills	10 %	10 %	10 %
Bonds: US	30	20	10
Bonds: Corp	30	20	15
Stock	30	50	65

For many pension plans, benefit increases after retirement have fallen short of keeping up with inflation. The retired life group has been affected more than the active life group. The investment return necessary for the indexing of benefits after retirement probably cannot be realized during a period of high inflation.

Forward-Looking Economic Data

The assumed rate of price inflation should not give undue weight to recent experience. Some historical economic data may not be appropriate for use in developing assumptions for future periods due to changes in the underlying environment. Professional forecasters, economists, and investors are reliable sources to guide in the selection and evaluation of expected future price inflation rates.

Investment Return and Inflation: Past and Future - Continued

The Survey of Professional Forecasters, maintained by the Federal Reserve Bank of Philadelphia, is the longest running quarterly survey of macroeconomic forecasts in the U.S. Over 50 forecasters from industry, government, banking and academics are included in its quarterly survey. With respect to price inflation, the Survey's median forecast (and backup data) of Headline CPI (Headline CPI is the total CPI, as opposed to Core CPI which excludes food and energy prices) expected for the following 10 years is published quarterly. The 10-year forecast published for the most recent quarter was 2.30%.

Quarterly Median Projection of Headline CPI-U Increase for the Following 10 Years (Philadelphia Federal Reserve)

2011-1	2011-2	2011-3	2011-4	2012-1	2012-2	2012-3	2012-4	2013-1	2013-2	2013-3	2013-4
2.30%	2.40%	2.40%	2.50%	2.30%	2.48%	2.35%	2.30%	2.30%	2.30%	2.21%	2.30%

Source: Federal Reserve Bank of Philadelphia – Survey of Professional Forecasters Quarterly (Inflation.xls)

The Congressional Budget Office (CBO) regularly publishes its Budget and Economic Outlook for the following 10 fiscal years. This report includes a forecast of CPI-U (All Urban Consumers). The following table presents the forecast for each of the following 10 years, as published in February 2014.

Consumer Price Index Forecast (CBO)

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Compound Average
1.90%	2.10%	2.10%	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.29%

Source: Congressional Budget Office – The Budget and Economic Outlook 2014-2024 (p. 6)

The Trustees of the Social Security system prepare and publish an annual report. Social Security's economists develop a forecast of future CPI-W (for Urban Wage Earners and Clerical Workers). The following table presents their forecasts in the 2013 annual report.

Social Security Trustees' Ultimate CPI-W Assumption for 2019 and Later

Low-cost	1.8%
Intermediate	2.8%
High-cost	3.8%

Source: 2013 Social Security Trustees' Report (p. 8)

Another source of information about future price inflation is the market for U.S. Treasury bonds. Comparing spreads between nominal and inflation-indexed treasury securities (TIPS) provides an estimate of the bond market's expectation of inflation over the next decade or more. However, this analysis ignores the inflation risk premium that buyers of U.S. Treasury bonds often demand, and it ignores the differences in liquidity between U.S. Treasury bonds and TIPS.

Treasury Constant Maturities (2013 Annual Yields)

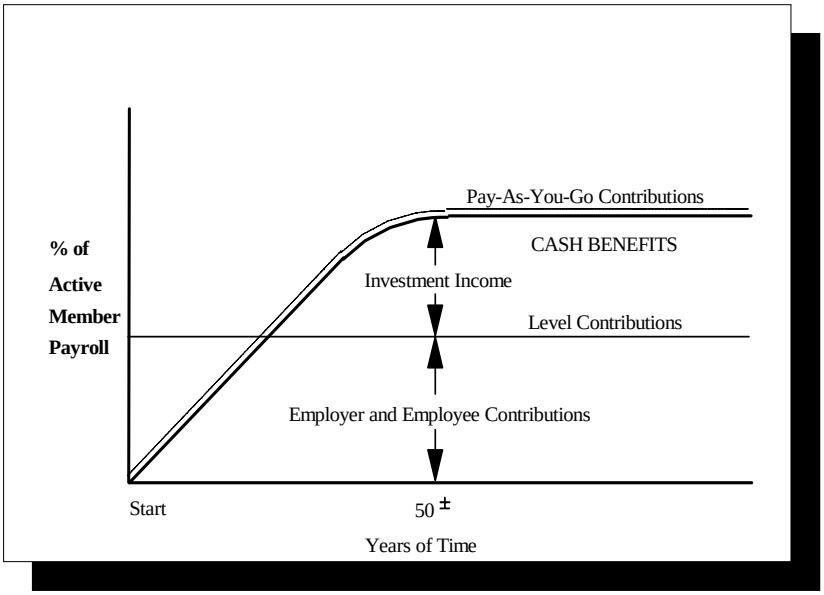
Term	Nominal	Inflation Adjusted	Implied Inflation
10-year	2.35%	0.07%	2.29%
20-year	3.12%	0.75%	2.38%
30-year	3.45%	1.07%	2.38%

Source: Board of Governors of the Federal Reserve System, Selected Interest Rates (Daily) – H. 15

SELECTION OF ASSUMPTIONS USED IN ACTUARIAL VALUATIONS

Economic Assumptions

Investment return
Pay increases to individual employees:
  the portion for economic changes
Active member group size and
  total payroll growth



Demographic Assumptions

Actual ages at service retirement
Pay increases to individual members:
  the portion for merit & seniority
Disability while actively employed
Separations before retirement
Mortality after retirement
Mortality before retirement

RELATIONSHIP BETWEEN PLAN GOVERNING BODY AND THE ACTUARY

The actuary should have the primary responsibility for choosing the ***demographic*** assumptions used in the actuarial valuation, making use of specialized training and experience.

The actuary and other professionals can provide guidance concerning the choice of suitable economic assumptions, but the basis of the economic assumptions is the assumed rate of ***inflation***, a quantity which defies accurate prediction. Given an assumed rate of future inflation, it is very important that this rate be applied in a consistent manner in deriving the assumed rate of investment return, the economic portion of the assumption on pay increases to individual employees, and the assumed rate of growth of active member payroll. Consistent application of assumptions is an area in which the actuary has specialized training.

A sound procedure is that the actuary suggests reasonable alternatives for economic assumptions, followed by discussion involving the actuary, the Plan Governing Body, and other professionals, and the Plan Governing Body then makes a final choice from the various alternatives.

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability. The difference between the actuarial present value of system benefits and the actuarial present value of future normal costs. Also referred to as "past service liability".

Actuarial Assumptions. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment return and pay 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 (pay increases and investment return) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

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

Actuarial Equivalent. One series of payments is said to be actuarially equivalent to another series of payments if the two series have the same actuarial present value.

Actuarial Gain (Loss). The difference between actual unfunded actuarial accrued liabilities and anticipated unfunded actuarial accrued liabilities -- during the period between two valuation dates. It is a measurement of the difference between actual and expected experience.

Actuarial Present Value. The single sum now which is equal to a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

Actuary. A person who is trained in the application of probability and compound interest to problems in business and finance that involve payment of money in the future, contingent upon the occurrence of future events. Most actuaries in the United States are Members of the American Academy of Actuaries. The Society of Actuaries is an international research, education and membership organization for actuaries in the life and health insurance, employee benefits, and pension fields. It administers a series of examinations leading initially to Associateship and the designation ASA. and ultimately to Fellowship with the designation FSA.

Amortization. Paying off an interest bearing liability with periodic payments as opposed to paying it off with a single sum payment.

Normal Cost. The portion of the actuarial present value of future benefits that is assigned to the current year by the actuarial cost method. Sometimes referred to as "current cost".

Unfunded Actuarial Accrued Liabilities. The difference between actuarial accrued liabilities and valuation assets. Sometimes referred to as "unfunded past service liability" or, strangely, "unfunded supplemental present value" or simply as "unfunded liability".

Valuation Assets. The value of plan assets recognized for valuation purposes. This may not be the same value that is used by the plan for financial reporting.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS
DECEMBER 31, 2013

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Nine months after the valuation date (October 1).
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Miscellaneous Loads:	For members hired prior to July 1, 2001 computed liabilities and normal costs are increased by 3.25% to reflect service credit for unused sick leave that may be granted at retirement.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability, mortality and turnover do not operate during retirement eligibility.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Benefit Service:	Exact Fractional Service is used to determine the amount of benefit payable.
Actuarial Equivalent Factors:	The interest rate is 7.5% for the Option D form of payment. For Small Pension payouts the interest rate is the lesser of 7.5% or the rate for 20-year Treasury Notes raised to the next highest integer from the December 1st preceding the Calendar year of retirement. Mortality is based upon a 20% unisex blend of the 1994 Group Annuity Mortality Table set back 3 years for males and 3 year for females.

June 23, 2014

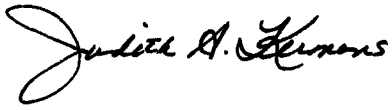
ERFC Board of Trustees
c/o Ms. Jeanne M. Carr, CFA,
Executive Director/CIO
8001 Forbes Place, Suite 300
Springfield, Virginia 22151

Re: The Report of the ERFC Annual Actuarial Valuation December 31, 2013

Dear Jeanne:

Enclosed are 12 copies of the report. Please call if you need additional copies.

Sincerely,



Judith A. Kermans, EA, MAAA, FCA

JAK:mrb
Enclosures