

ILLINOIS MUNICIPAL RETIREMENT FUND
ANNUAL ACTUARIAL VALUATION REPORT
DECEMBER 31, 2013

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March 31, 2014

Board of Trustees
Illinois Municipal Retirement Fund
Oak Brook, Illinois 60521

Ladies and Gentlemen:

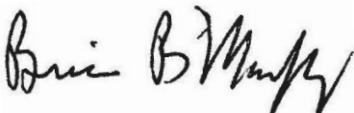
The results of the **December 31, 2013 annual actuarial valuations** of members covered by the Illinois Municipal Retirement Fund (IMRF) are presented in this report. The purpose of the valuations, as provided by Article 7 of the Illinois Pension Code, is to measure IMRF's funding progress and to establish contribution rates for the 2015 calendar year. This report should not be relied upon for any other purpose. This report may be distributed to parties other than the System only in its entirety and only with the permission of the Board.

The valuation was based upon information, furnished by IMRF staff, concerning Retirement Fund benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year to year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided. The valuations are based upon current plan provisions related to Regular Members, Sheriff's Law Enforcement Personnel (SLEP), and Elected County Officials (ECO) employment.

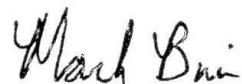
Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment,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

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

Respectfully submitted,



Brian B. Murphy, FSA, EA, MAAA



Mark Buis, FSA, EA, MAAA

BBM/MB:sc

INTRODUCTION

IMRF is established under statutes adopted by the Illinois General Assembly. It is an agent multiple employer defined benefit pension plan that, as of December 31, 2013, encompasses 3,296 active plans and serves 417,227 active and inactive members and retired persons. Since IMRF reports information to us by plan, there are cases in which a person with employment in more than one plan is counted multiple times for census counts. This produces an overstatement in the census when compared with true counts of people. Liabilities are, however, correctly calculated and apportioned among employers. This issue may affect inactive members to a greater extent than it affects others. IMRF is funded by both member and employer contributions. Members contribute at fixed rates determined by statute. Regular members contribute 4.5% of pay; SLEP members contribute 7.5%; ECO members contribute 7.5%. Participating employers make all additional contributions needed to provide benefits. Each employer contributes to a separate account within IMRF which, when combined with member contributions and investment income, will be sufficient to provide future benefits for its own employees. Employer contributions for each plan are computed each year in the actuarial valuation and consist of:

- **Normal Cost Contributions** for normal and early retirement benefits, separation benefits, permanent disability benefits, and annuity type death benefits. These contributions are the same for most employers (larger employers have the option of being individually rated).
- **Contributions for lump sum death-in-service benefits**, which are separately determined for each employer.
- **Contributions for temporary disability benefits**, which are 0.11% of payroll for each employer.
- **Contributions for 13th Payments**, which are 0.62% of covered payroll for each employer.
- **Contributions for Early Retirement Incentive (ERI) unfunded liabilities** which are separately determined for each employer.
- **Contributions for other unfunded liabilities**, which are separately determined for each employer. For employers with taxing authority, unfunded liabilities are being funded over a 28-year closed period (with a rolling period at 15 years). For non-taxing employers the unfunded liabilities are being funded over a 10-year rolling period. Unfunded liabilities associated with benefit changes for SLEP members (Public Act 94-712) are amortized over 23 years for most employers. The amortization policy is described on page D-12.

Employer contributions computed in this valuation compared with those computed in the prior valuation are shown below.

	Average Employer Contribution Rates Expressed as %'s of Active Member Pays			
	Regular	SLEP	ECO	Average/Total
This Valuation	11.69%	22.33%	70.37%	12.28%
Prior Valuation	12.58%	23.20%	74.52%	13.19%

This year’s valuation results were affected by:

- Favorable investment return in 2013.
- Continued recognition of Tier 2 benefits for new hires.
- ERI liabilities.
- Three employers are individually rated (DuPage County; Union School District 46 and Peoria County). Although these employers will receive separate valuation reports, member counts, assets, and liabilities for these employers are also included in this valuation report.

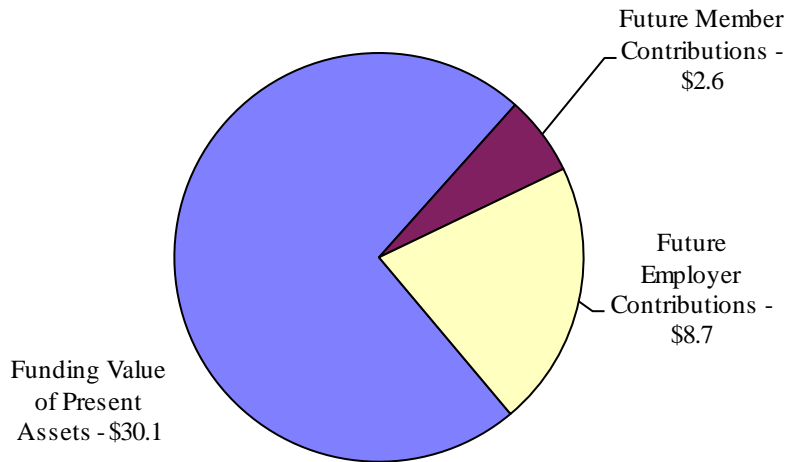
Based upon this year’s valuation results, IMRF is 87.6% funded and the average/total employer rate is 12.28% of payroll.

Section A of this report describes this year’s valuation results in depth.

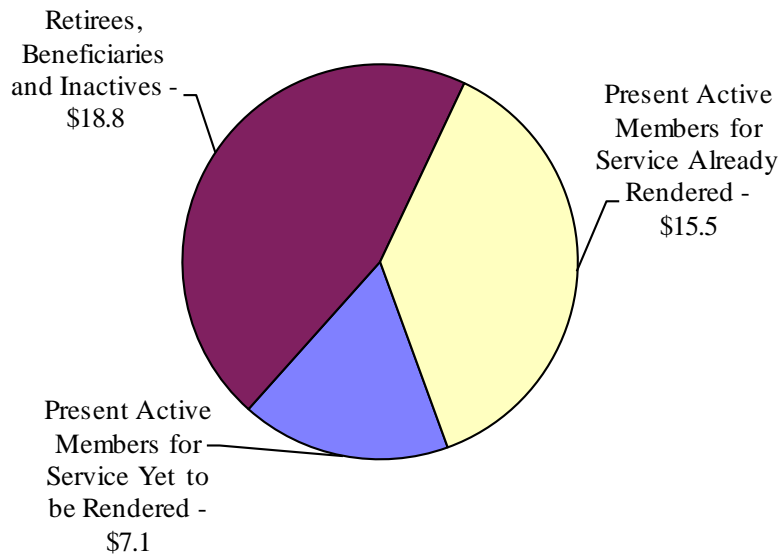
SECTION A
VALUATION RESULTS

**FINANCING \$41.4 BILLION WORTH OF BENEFIT PROMISES
TO PRESENT MEMBERS, RETIREES AND BENEFICIARIES
DECEMBER 31, 2013
(AMOUNTS IN \$BILLIONS)**

Sources of Funds



IMRF Obligations



ACTUARIAL BALANCE SHEET
DECEMBER 31, 2013

	Funding Sources			
	Regular	SLEP	ECO	Total
Present Valuation Assets				
Member Contributions	\$ 5,607,995,547	\$ 352,215,038	\$ 28,094,895	\$ 5,988,305,480
Employer Assets	10,931,197,145	562,124,367	4,417,689	11,497,739,201
Retired Life Assets	14,369,082,490	1,151,948,743	232,040,108	15,753,071,341
Market Value Adjustment	(2,963,548,089)	(197,846,351)	(24,692,332)	(3,186,086,772)
Death and Disability Reserves				30,013,298
Total Present Assets	\$27,944,727,093	\$1,868,441,797	\$239,860,360	\$30,083,042,548
Future Assets				
Member Contributions	2,469,328,483	192,665,445	7,367,493	2,669,361,421
Employer Contributions				
Normal Costs	4,074,061,552	315,775,195	17,418,105	4,407,254,852
Unfunded Liability	3,702,013,339	468,613,777	102,905,809	4,273,532,925
Total Employer	7,776,074,891	784,388,972	120,323,914	8,680,787,777
Total Future Assets	10,245,403,374	977,054,417	127,691,407	11,350,149,198
Total Funding Sources	\$38,190,130,467	\$2,845,496,214	\$367,551,767	\$41,433,191,746

	Funding Uses			
	Regular	SLEP	ECO	Total
Funds Needed for				
Active Members	\$20,842,328,321	\$1,614,015,317	\$103,321,379	\$22,559,665,017
Inactive Members	2,978,719,656	79,532,154	32,190,280	3,090,442,090
Retirees and Beneficiaries	14,369,082,490	1,151,948,743	232,040,108	15,753,071,341
Death and Disability Benefits				30,013,298
Total Actuarial Present Value	\$38,190,130,467	\$2,845,496,214	\$367,551,767	\$41,433,191,746

**DEVELOPMENT OF AVERAGE CONTRIBUTION RATES
 APPLICABLE TO CALENDAR YEAR 2015
 (RESULTS AS OF DECEMBER 31, 2013)**

	% of Active Member Pays		
	Regular	SLEP	ECO
Tier 1 Normal Cost	7.89 %	12.78 %	17.74 %
Tier 2 Normal Cost	4.65 %	8.67 %	13.66 %
Average Employer Contributions for Normal Cost*			
Retirement	7.40 %	12.18 %	17.33 %
\$3,000 Lump Sum Death Benefit	0.04 %	0.01 %	0.06 %
Total & Permanent Disability Benefit	0.07 %	0.23 %	0.34 %
Total Normal Cost	7.51 %	12.42 %	17.73 %
Lump Sum Death-in-Service Benefits	0.17 %	0.18 %	0.18 %
Temporary Disability	0.11 %	0.11 %	0.11 %
13th Payments	0.62 %	0.62 %	0.62 %
Unfunded (Overfunded) Liabilities (28/10 years)	3.06 %	7.14 %	51.70 %
Early Retirement Incentive Liabilities	0.22 %	0.10 %	0.03 %
SLEP Supplemental Liabilities	0.00 %	1.76 %	0.00 %
Total Average Employer Rate	11.69 %	22.33 %	70.37 %
Prior Year Averages	12.58 %	23.20 %	74.52 %

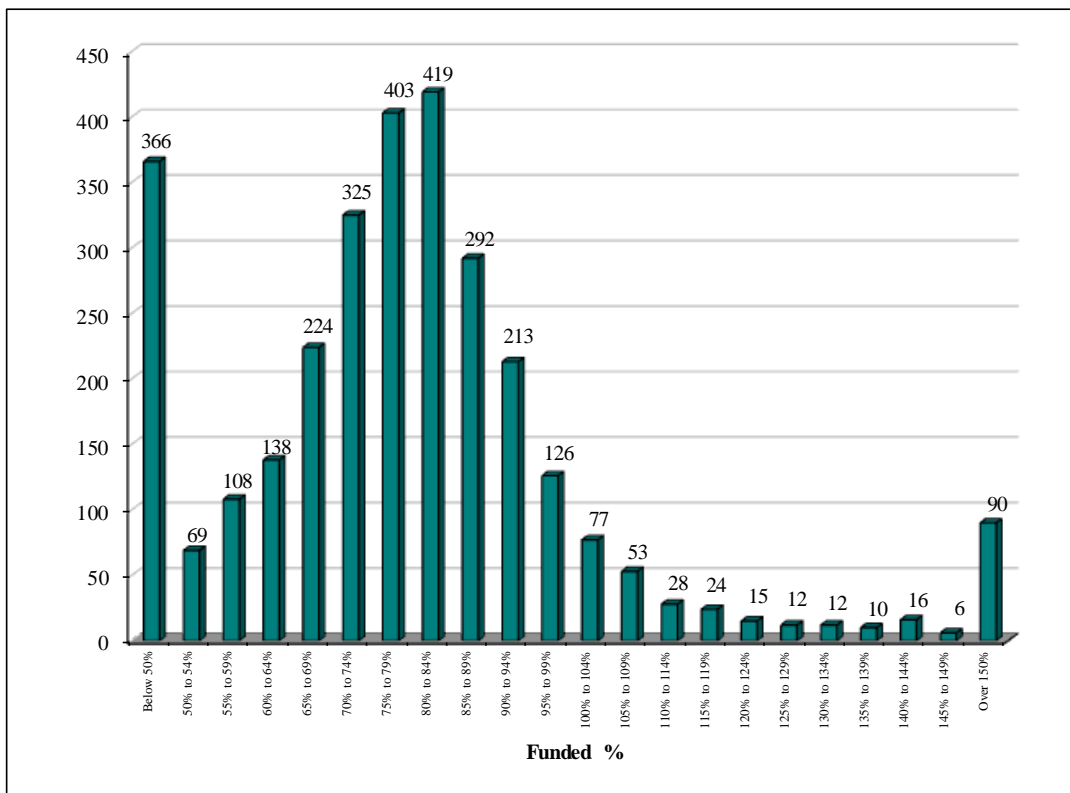
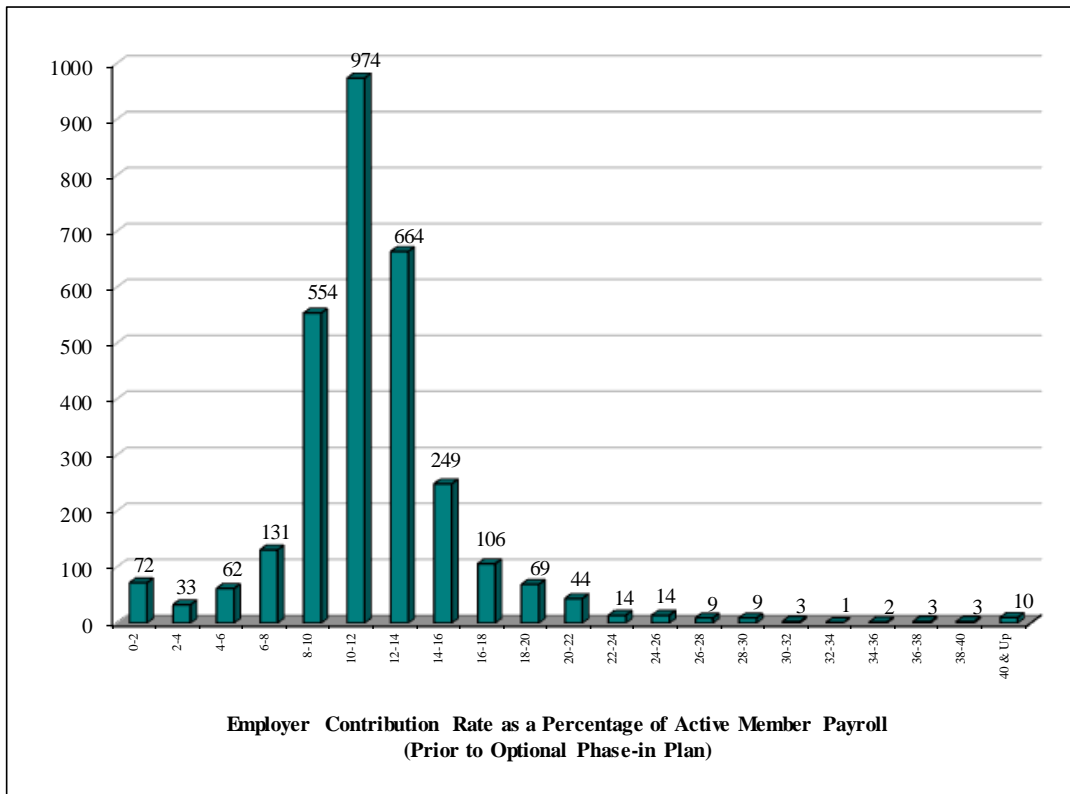
* Average of Tier 1 and Tier 2 Normal Cost weighted on expected payroll.

Each participating employer pays a normal cost rate based on the weighted average of its Tier 1 and Tier 2 projected wages (some larger employers have the option of paying an individual normal cost rate) and the same rate for temporary disability benefits and 13th Payments. Rates for lump sum death-in-service benefits, unfunded (overfunded) liabilities, and early retirement incentive liabilities are separately determined for each employer, and can vary widely. Because of this, the average contribution rates tell only part of the story. Pages A-4 through A-7 show the distribution of computed employer contribution rates, funding percents, and rate changes based on the annual required contribution from the prior year among the 3,026 Regular plans, 203 SLEP plans and 67 ECO plans. IMRF staff reviews all of the computed rates and in some cases may make adjustments to those rates that are not reflected in this report.

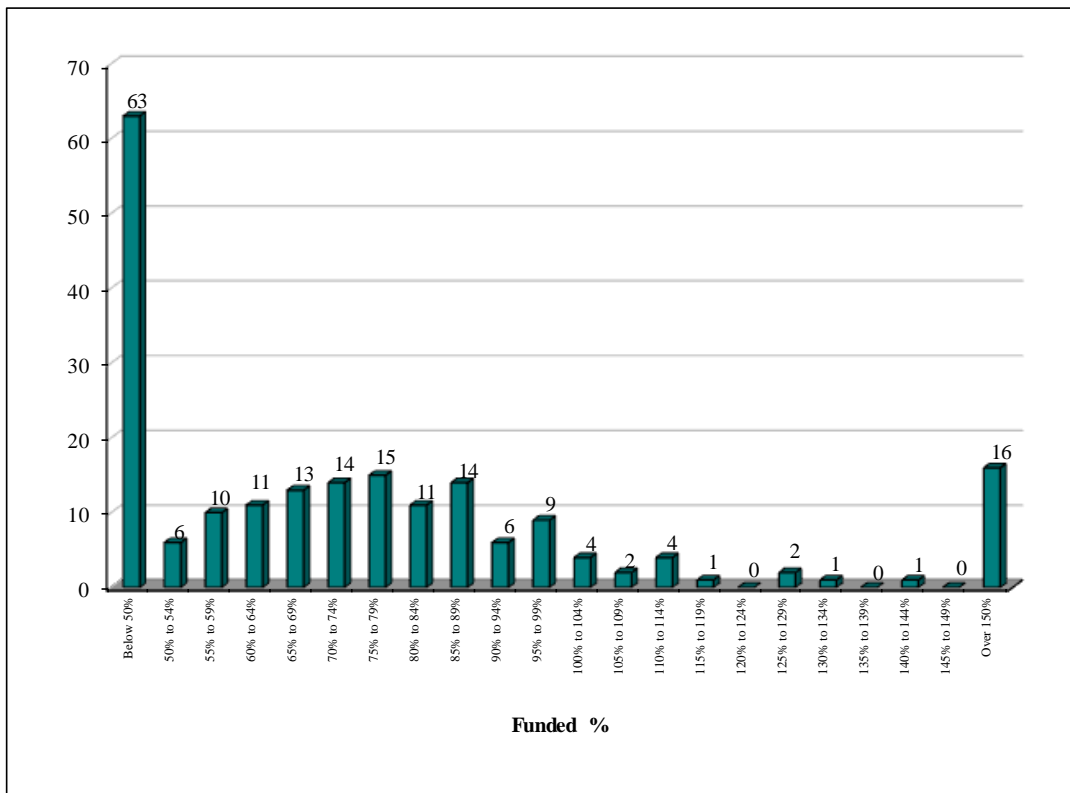
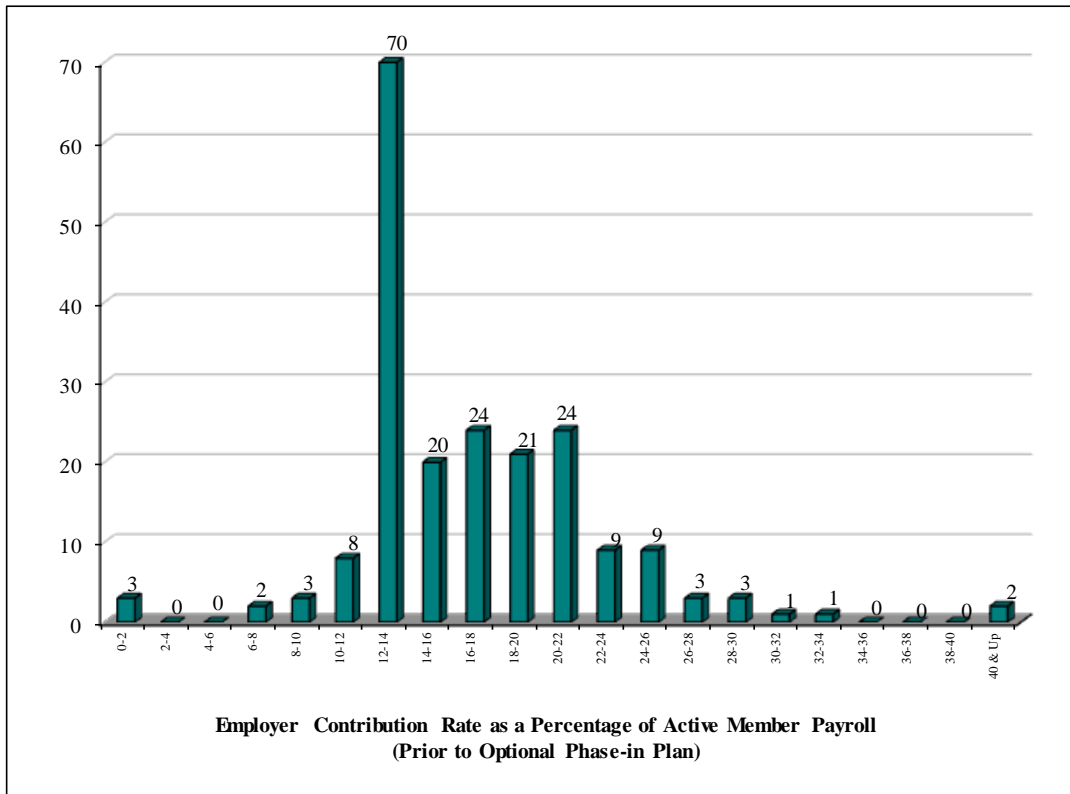
Employer contributions made during calendar year 2013 amounted to \$931 million. This compares with \$883 million in the previous year.

EMPLOYER CONTRIBUTION RATES AND FUNDED PERCENTS

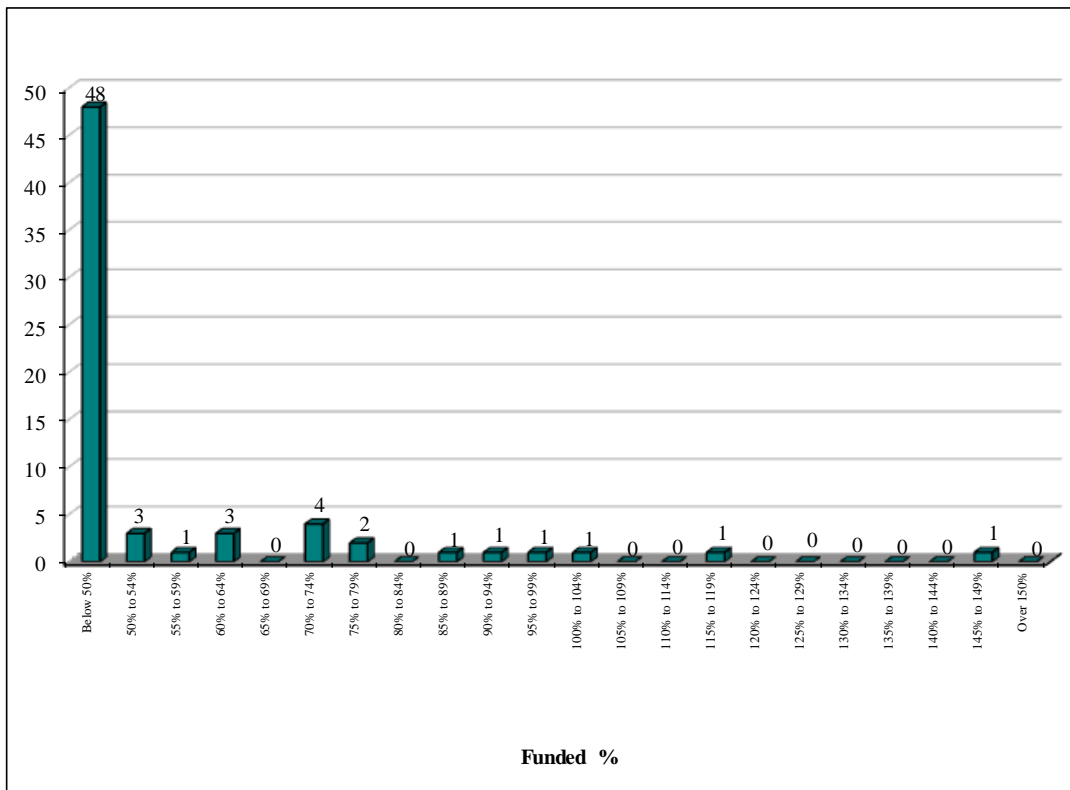
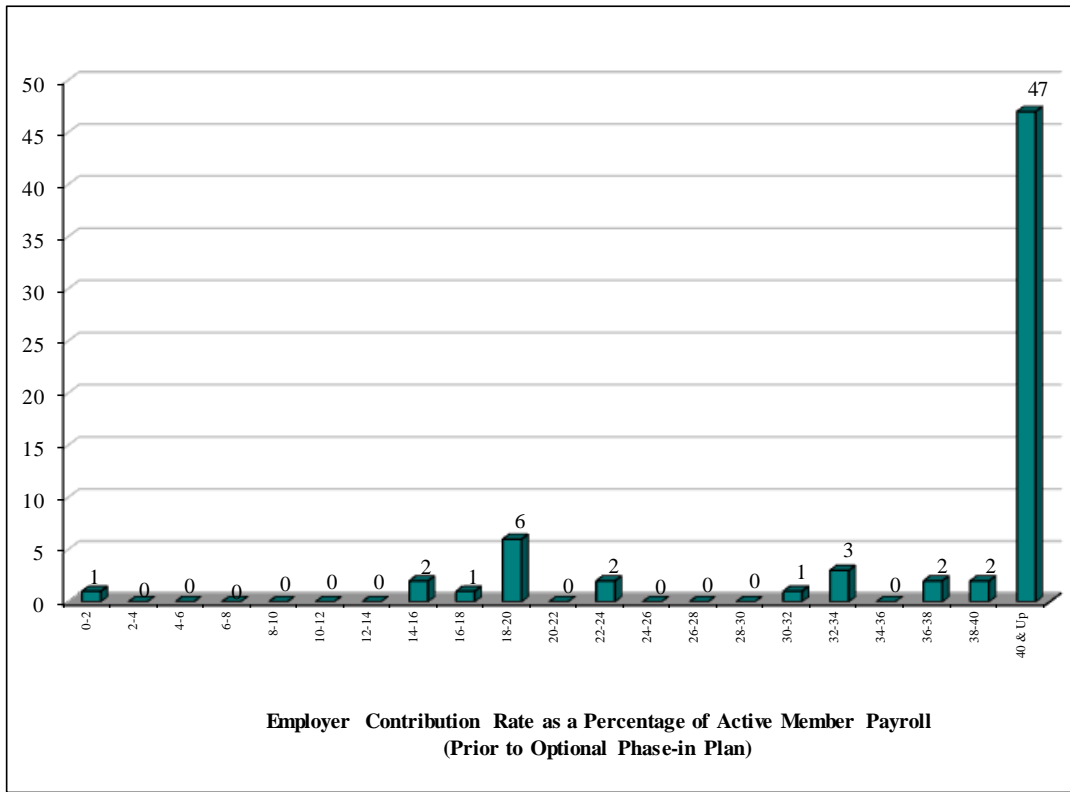
3,026 REGULAR EMPLOYERS AT DECEMBER 31, 2013



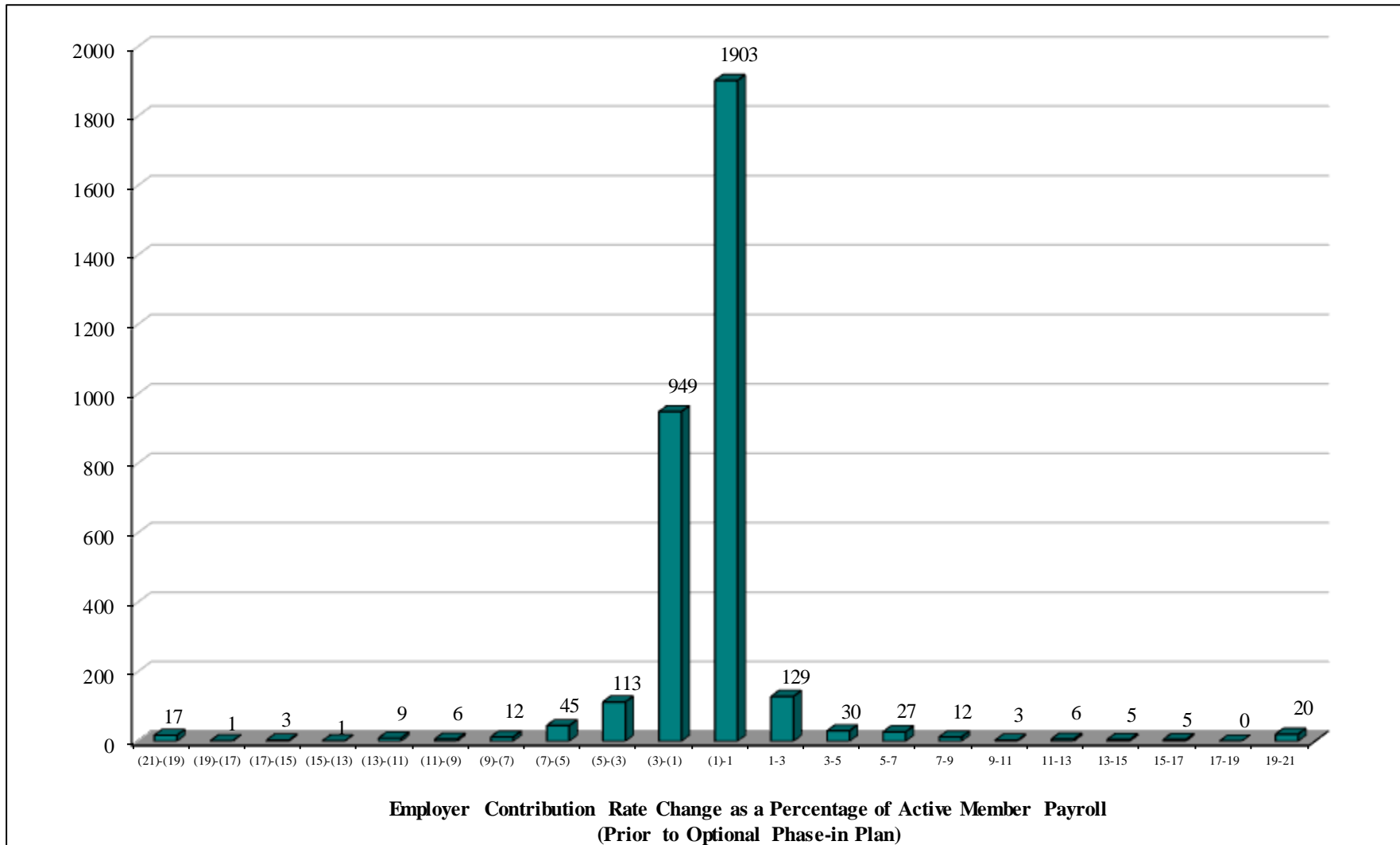
EMPLOYER CONTRIBUTION RATES AND FUNDED PERCENTS 203 SLEP EMPLOYERS AT DECEMBER 31, 2013



EMPLOYER CONTRIBUTION RATES AND FUNDED PERCENTS 67 ECO EMPLOYERS AT DECEMBER 31, 2013



EMPLOYER CONTRIBUTION RATE CHANGES - 2013 ACTUARIAL VALUATIONS 3,296 EMPLOYERS



HISTORICAL SUMMARY OF EMPLOYER RATES

Rate Applies to Calendar Year	Rate Computed as of December 31	Employer Contribution Rate					
		Expressed as % of Active Payroll					
		Regular Members		SLEP Members		ECO Members	
		Normal Cost	Average Total Rate	Normal Cost	Average Total Rate	Normal Cost	Average Total Rate
1991	1989	6.94%	11.60%	7.88%	12.02%		
1992	1990 ¹	8.24%	11.89%	10.31%	14.01%		
1993	1991 ^{1, 2}	7.04%	10.58%	8.49%	12.01%		
1994	1992	7.33%	10.77%	8.87%	11.82%		
1995	1993 ¹	7.22%	10.19%	9.50%	12.00%		
1996	1994	7.22%	9.98%	9.51%	11.97%		
1997	1995	7.27%	9.61%	9.32%	11.43%		
1998	1996 ¹	7.21%	9.64%	10.22%	13.94%		
1999	1997 ³	7.23%	9.03%	10.62%	14.65%	21.48%	36.14%
2000	1998	7.17%	8.16%	10.42%	14.28%	23.39%	41.38%
2001	1999 ¹	7.41%	6.64%	12.02%	14.86%	23.85%	42.58%
2002	2000	7.62%	5.87%	11.94%	14.13%	18.05%	38.46%
2003	2001	7.66%	6.22%	11.96%	14.04%	17.95%	40.37%
2004	2002 ¹	7.60%	7.82%	12.47%	16.29%	18.18%	44.90%
2005	2003	7.61%	9.25%	12.48%	17.15%	18.07%	42.66%
2006	2004	7.64%	10.04%	12.56%	18.25%	18.01%	44.90%
2007	2005 ^{1, 2}	7.43%	9.72%	11.66%	18.42%	17.52%	41.30%
2008	2006	7.42%	9.47%	11.63%	19.33%	16.96%	41.80%
2009	2007	7.42%	9.27%	11.63%	18.65%	17.08%	42.77%
2010	2008 ^{1, 4}	7.58%	11.89%	11.97%	21.63%	17.24%	43.57%
2011	2009 ⁴	7.58%	12.14%	11.97%	21.76%	17.20%	42.72%
2012	2010 ⁴	7.58%	12.42%	12.01%	22.48%	17.22%	47.15%
2013	2011 ^{1, 2, 4}	7.77%	12.85%	12.74%	23.40%	17.63%	46.85%
2014	2012 ⁴	7.64%	12.58%	12.61%	23.20%	17.59%	74.52%
2015	2013⁴	7.51%	11.69%	12.42%	22.33%	17.73%	70.37%

1 Assumption change.

2 Benefit change.

3 Changed to payroll weighted average method.

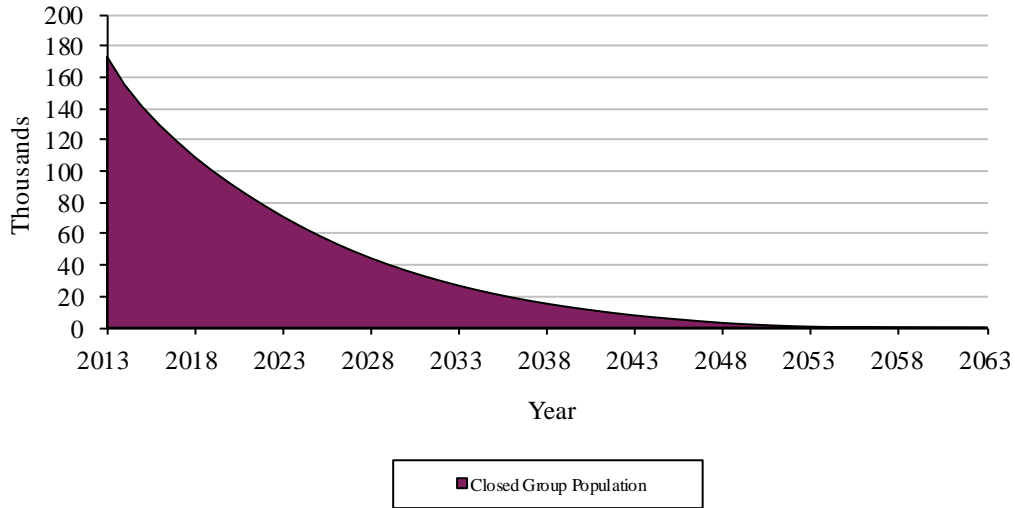
4 Before optional phase-in plan.

As shown above, the average employer contribution rates decreased this year for regular, SLEP and ECO employers. Generally, small fluctuations from year to year should be expected for the average rate and for any large employer's rate. Small and very small employers will experience larger variations.

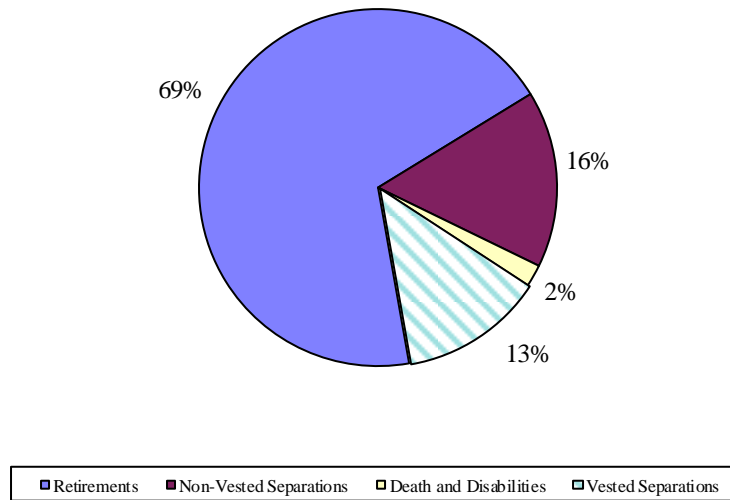
Most of the larger changes were for small employers (often employers covering only 1 or 2 employees), since the removal or addition of 1 employee can significantly impact the contribution rate. The actuary and IMRF staff review all of the large rate changes individually in order to determine the reasonableness of the change. In some cases, rates may be changed.

EXPECTED DEVELOPMENT OF PRESENT POPULATION DECEMBER 31, 2013

Closed Group Population Projection



Expected Terminations from Active Employment for Current Active Members



The charts above show the expected future development of the present population in simplified terms. The retirement system presently covers 173,481 active members. Eventually, 16% of the population is expected to terminate covered employment prior to retirement and forfeit eligibility for a monthly benefit. About 82% of the present population is expected to receive monthly retirement benefits either by retiring directly from active service, or by retiring from vested deferred status. Two percent of the present population is expected to become eligible for death-in-service or disability benefits. **Within 8 years, over half of the covered membership is expected to consist of new hires.**

UNFUNDED ACTUARIAL ACCRUED LIABILITIES

In a retirement system such as IMRF, where unfunded liabilities are being amortized as a level percent of active member payroll, unfunded liabilities are expected to rise in dollar amount for an extended period before finally beginning to decrease. This has to do with inflation and the related fact that the dollar is a yardstick whose length changes every year. The schedule below illustrates the development of the unfunded liability, based upon actuarial value of assets, during the year.

	Unfunded Liability Development During	
	2013	2012
Unfunded (Overfunded) Liability January 1	\$5,111,434,314	\$5,251,527,844
Assumed Net (Payments) Credits	(304,110,359)	(285,736,416)
Assumed Interest	372,090,882	383,278,615
Expected Unfunded Liability December 31	5,179,414,837	5,349,070,043
Increase/(Decrease) Due to Experience Study	0	0
Increase/(Decrease) Due to Benefit Changes	0	0
Increase/(Decrease) Due to Data Changes	0	0
Loss/(Gain) Due to Investment Experience	(811,460,409)	(71,019,991)
Loss/(Gain) Due to Other Sources	(94,421,503)	(166,615,738)
Actual Unfunded Liability December 31	\$4,273,532,925	\$5,111,434,314

**UNFUNDED ACTUARIAL ACCRUED LIABILITIES
COMPARATIVE STATEMENT
(AMOUNTS IN \$MILLIONS)**

Valuation Date	(1) Actuarial Accrued Liabilities (AAL)	(2) Valuation Assets	(3) Unfunded AAL	(4) Valuation Payroll	(5) Funded Ratio (2)/(1)	(6) Liability/ Payroll (1)/(4)	(7) Assets/ Payroll (2)/(4)	(8) Unfunded/ Payroll (3)/(4)
1989	\$ 5,429.4	\$ 3,589.7	\$1,839.7	\$2,141.5	66.1%	253.5%	167.6%	85.9%
1990*	6,234.6	4,468.8	1,765.8	2,303.5	71.7%	270.7%	194.0%	76.7%
1991*#	6,407.0	5,034.6	1,372.4	2,491.9	78.6%	257.1%	202.0%	55.1%
1992	6,954.5	5,615.6	1,338.9	2,634.4	80.7%	264.0%	213.2%	50.8%
1993*	7,509.8	6,396.3	1,113.4	2,709.3	85.2%	277.2%	236.1%	41.1%
1994	8,126.6	7,078.9	1,047.8	2,946.5	87.1%	275.8%	240.2%	35.6%
1995	8,823.7	8,034.0	789.7	3,095.9	91.1%	285.0%	259.5%	25.5%
1996*	9,778.6	9,076.3	702.3	3,084.1	92.8%	317.1%	294.3%	22.8%
1997	10,808.0	10,273.1	534.9	3,454.6	95.1%	312.9%	297.4%	15.5%
1998	11,860.9	11,636.5	224.4	3,696.0	98.1%	320.9%	314.8%	6.1%
1999*	13,005.0	13,520.2	(515.2)	3,952.1	104.0%	329.1%	342.1%	-
2000	14,153.1	15,169.4	(1,016.3)	4,184.7	107.2%	338.2%	362.5%	-
2001	15,318.5	16,305.0	(986.5)	4,503.1	106.4%	340.2%	362.1%	-
2002*	16,559.9	16,800.2	(240.3)	4,755.1	101.5%	348.3%	353.3%	-
2003	17,966.1	17,529.9	436.2	4,944.8	97.6%	363.3%	354.5%	8.8%
2004	19,424.7	18,316.0	1,108.7	5,161.1	94.3%	376.4%	354.9%	21.5%
2005 *#	20,815.1	19,698.4	1,116.7	5,374.6	94.6%	387.3%	366.5%	20.8%
2006	22,488.2	21,427.1	1,061.0	5,630.7	95.3%	399.4%	380.5%	18.8%
2007	24,221.5	23,274.4	947.2	5,931.4	96.1%	408.4%	392.4%	16.0%
2008 *	25,611.2	21,601.1	4,010.1	6,259.3	84.3%	409.2%	345.1%	64.1%
2009	27,345.1	22,754.8	4,590.3	6,461.7	83.2%	423.2%	352.1%	71.0%
2010	29,129.2	24,251.1	4,878.1	6,391.2	83.3%	455.8%	379.4%	76.3%
2011 *#	30,962.8	25,711.3	5,251.5	6,431.3	83.0%	481.4%	399.8%	81.7%
2012	32,603.2	27,491.8	5,111.4	6,496.1	84.3%	501.9%	423.2%	78.7%
2013	34,356.6	30,083.0	4,273.6	6,602.5	87.6%	520.4%	455.6%	64.7%

* Assumption change.

Benefit change.

While no one or two numeric indices can fully describe the financial condition of a retirement system, trends in both the Funded Ratio (column 5) and the Unfunded/Payroll Ratio (column 8) provide useful information. Unfunded accrued liabilities represent plan debt, while active member payroll represents the plan's capacity to service the debt. In a retirement system that is following the discipline of level percent of payroll financing, the Funded Ratio should gradually move toward 100% and the Unfunded/Payroll ratio should gradually move toward 0%.

SHORT CONDITION TEST

If the contributions to IMRF are level in concept and soundly executed, the System will *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) Member contributions on deposit;
- 2) The liabilities for future benefits to present retired lives;
- 3) The liabilities for service already rendered by active and inactive members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for 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 and inactive 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.

Short Condition Test

Calendar Year	Aggregate Actuarial Liabilities For			Actuarial Assets	Portion of Actuarial Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Non-Retired Contributions	Annuitants	Non-Retired Members (Employer Financed Portion)				
1997	\$1,933,512,014	\$3,995,946,514	\$4,878,510,539	\$ 10,273,116,034	100%	100%	89.0%
1998	2,086,679,470	4,485,651,306	5,288,548,422	11,636,495,534	100%	100%	95.8%
1999*	2,259,446,274	4,915,459,683	5,830,117,336	13,520,192,111	100%	100%	108.8%
2000	2,473,646,891	5,284,275,174	6,395,133,709	15,169,369,271	100%	100%	115.9%
2001	2,708,833,984	5,613,708,283	6,995,975,308	16,305,022,254	100%	100%	114.1%
2002*	2,950,041,671	6,050,882,416	(9,000,907,527)	16,800,195,504	100%	100%	-86.6%
2003	3,186,234,066	6,674,490,186	8,105,379,199	17,529,890,818	100%	100%	94.6%
2004	3,423,785,725	7,332,542,340	8,668,338,951	18,315,987,910	100%	100%	87.2%
2005*#	3,688,148,208	7,966,135,229	9,160,777,405	19,698,401,285	100%	100%	87.8%
2006	3,960,880,175	8,652,328,762	9,874,976,094	21,427,139,356	100%	100%	89.3%
2007	4,248,399,825	9,400,832,984	10,572,310,907	23,274,361,198	100%	100%	91.0%
2008*	4,573,736,116	10,025,599,295	11,011,863,938	21,601,053,512	100%	100%	63.6%
2009	4,893,022,745	10,903,323,478	11,548,766,993	22,754,803,784	100%	100%	60.3%
2010	5,153,902,881	12,121,959,266	11,853,366,092	24,251,136,889	100%	100%	58.8%
2011 *#	5,417,822,062	13,388,018,799	12,156,974,567	25,711,287,584	100%	100%	56.8%
2012	5,705,336,025	14,482,560,758	12,415,347,316	27,491,809,785	100%	100%	58.8%
2013	5,957,217,332	15,753,071,341	12,646,286,800	30,083,042,548	100%	100%	66.2%

* Assumption change.

Benefit change.

SHORT CONDITION TEST

Regular Members

Calendar Year	Aggregate Actuarial Liabilities For			Actuarial Assets	Portion of Actuarial Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Non-Retired Contributions	Annuitants	Non-Retired Members (Employer Financed Portion)				
2004	\$3,218,950,781	\$6,775,766,071	\$8,033,013,628	\$17,183,420,531	100%	100%	89.5%
2005*#	3,467,051,885	7,348,267,408	8,459,755,550	18,462,949,189	100%	100%	90.4%
2006	3,722,403,708	7,943,908,035	9,079,788,372	20,063,069,197	100%	100%	92.5%
2007	3,992,763,009	8,599,825,860	9,769,922,388	21,779,613,412	100%	100%	94.0%
2008*	4,297,097,330	9,168,217,695	10,187,007,579	20,191,630,667	100%	100%	66.0%
2009	4,594,830,636	9,971,780,724	10,698,214,439	21,250,929,876	100%	100%	62.5%
2010	4,841,653,264	11,047,821,308	11,007,557,254	22,628,324,412	100%	100%	61.2%
2011 *#	5,087,758,544	12,189,531,092	11,298,603,677	23,948,247,636	100%	100%	59.0%
2012	5,350,457,218	13,212,926,495	11,531,067,293	25,599,029,673	100%	100%	61.0%
2013	5,578,881,769	14,369,082,490	11,726,152,647	27,972,103,567	100%	100%	68.4%

* Assumption change.

Benefit change.

SLEP Members

Calendar Year	Aggregate Actuarial Liabilities For			Actuarial Assets	Portion of Actuarial Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Non-Retired Contributions	Annuitants	Non-Retired Members (Employer Financed Portion)				
2004	\$186,737,395	\$475,131,592	\$516,744,548	\$1,018,431,576	100%	100%	69.0%
2005*#	200,612,275	524,514,703	591,855,568	1,106,145,236	100%	100%	64.4%
2006	215,431,613	601,939,738	673,264,887	1,216,287,901	100%	100%	59.3%
2007	230,360,204	682,656,029	671,880,227	1,330,462,724	100%	100%	62.1%
2008*	251,078,170	691,076,541	711,187,062	1,225,043,022	100%	100%	39.8%
2009	270,526,254	756,769,279	735,206,914	1,307,566,622	100%	100%	38.1%
2010	284,935,047	868,199,000	739,639,201	1,410,557,658	100%	100%	34.8%
2011 *#	301,264,894	976,023,299	754,994,446	1,533,422,771	100%	100%	33.9%
2012	326,676,260	1,025,411,748	792,652,347	1,644,518,055	100%	100%	36.9%
2013	350,386,522	1,151,948,743	836,915,042	1,870,636,530	100%	100%	44.0%

* Assumption change.

Benefit change.

SHORT CONDITION TEST

ECO Members

Calendar Year	Aggregate Actuarial Liabilities For			Actuarial Assets	Portion of Actuarial Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
	Non-Retired Contributions	Annuitants	Non-Retired Members (Employer Financed Portion)				
2004	\$18,097,549	\$81,644,677	\$118,580,776	\$114,135,803	100%	100%	12.1%
2005*#	20,484,049	93,353,118	109,166,286	129,306,860	100%	100%	14.2%
2006	23,044,854	106,480,989	121,922,835	147,782,258	100%	100%	15.0%
2007	25,276,522	118,351,095	130,508,292	164,285,062	100%	100%	15.8%
2008	25,560,616	166,305,059	113,669,297	184,379,823	100%	95%	0.0%
2009	27,665,855	174,773,475	115,345,640	196,307,286	100%	96%	0.0%
2010	27,314,570	205,938,958	106,169,637	212,254,819	100%	90%	0.0%
2011 *#	28,798,624	222,464,408	103,376,444	229,617,177	100%	90%	0.0%
2012	28,202,547	244,222,515	91,627,676	248,262,057	100%	90%	0.0%
2013	27,949,041	232,040,108	83,219,111	240,302,451	100%	92%	0.0%

* Assumption change.

Benefit change.

SECTION B

**SUMMARY OF BENEFIT PROVISIONS
AND VALUATION DATA**

SUMMARY OF BENEFITS AND CONDITIONS EVALUATED

DECEMBER 31, 2013

This is a brief plan description of IMRF benefits. Additional conditions and restrictions may apply. A complete description is found in Article 7 of the Illinois Pension Code.

Participating Employers

All counties and school districts, plus cities and villages and incorporated towns with a population of 5,000 or more (except certain governmental entities specifically excluded by the Pension Code) are required to participate. Other local government units may elect to participate.

Membership

All appointed employees of a participating employer who are employed in a position normally requiring 600 hours (1,000 hours for certain employees hired after 1981) or more of work in a year are required to participate. Elected officials and hospital employees who satisfy requirements may also participate.

Service Credit

Service credit is the total time under IMRF, stated in years and fractions. Service is credited monthly while the member is working, receiving IMRF disability benefits or on IMRF's Benefit Protection Leave. For revised ECO members, the ECO benefit formula is limited to service in an elected office.

Members may qualify for a maximum of one year of additional service credit for unused, unpaid sick leave accumulated with the last employer. Members who retire from a school district may utilize unused sick leave from all school district employers. This additional service credit applies only for members leaving employment for retirement. The service credit is earned at the rate of one month for every 20 days of unused, unpaid sick leave or fraction thereof.

IMRF is a participating plan under the Reciprocal Act, as are all other Illinois public pension systems, except local police and fire pension plans. Under the Reciprocal Act, service credit of at least one year may be considered together at the date of retirement or death for the purpose of determining eligibility for and amount of benefits. However, for teacher aides who meet certain criteria, service credit of less than one year may be considered in determining benefits under the Reciprocal Act.

Final Rate of Earnings (FRE)

Retirement and Survivor Annuities

Tier 1 Members: The final rate of earnings for Regular and SLEP members is the highest total earnings during any 48 consecutive months within the last 10 years of IMRF service divided by 48 or the total lifetime earnings divided by the total lifetime number of months of service. The final rate of earnings for ECO members is the annual salary of the ECO member on the day he or she retires. For revised ECO members who join the plan after January 25, 2000, the final rate of earnings is the highest total earnings during any 48 consecutive months within the last 10 years of IMRF service divided by 48 for each office held.

Tier 2 Members: The final rate of earnings for Regular and SLEP members is the highest total earnings during any 96 consecutive months within the last 10 years of IMRF service divided by 96 or the total lifetime earnings divided by the total lifetime number of months of service. For revised ECO members who join the plan after January 25, 2000, the final rate of earnings is the highest total earnings during any 96 consecutive months within the last 10 years of IMRF service divided by 96 for each office held. Pensionable earnings are initially capped at \$106,800 which will increase annually beginning in 2012 by three percent or one-half of the increase of the Consumer Price Index, whichever is less. For SLEP members overtime compensation is excluded from pensionable earnings.

Death Benefits: The greater of the above amount or the average of earnings over the last 12 months of service.

Disability Benefits: The average of earnings over the last 12 months of service (for ECO members, annualized salary on last day of ECO participation).

SUMMARY OF BENEFITS AND CONDITIONS EVALUATED

DECEMBER 31, 2013

Normal Retirement Pension Eligibility

Tier 1 Members:

Normal retirement for an unreduced pension is:

- Age 60 with eight or more years of service or 35 or more years of service at age 55,
- Age 50 with 20 or more years of SLEP service for members with SLEP service,
- Age 55 with eight or more years of service for members with ECO service, or
- Age 55 with eight or more years of service in the same elected county office for members with Revised ECO service.

Tier 2 Members:

Normal retirement for an unreduced pension is:

- Age 67 with ten or more years of service or 35 or more years of service at age 62,
- Age 55 with ten or more years of SLEP service for members with SLEP service,
- Age 67 with eight or more years of service in the same elected county office for members with Revised ECO service.

Normal Retirement Pension Amount

A Regular IMRF pension is:

- 1-2/3 percent of the final rate of earnings for each of the first 15 years of service credit, plus
- 2 percent for each year of service credit in excess of 15 years.

The maximum pension at retirement cannot exceed 75 percent of the final rate of earnings.

A SLEP pension is:

- 2-1/2 percent of the final rate of earnings for each year of service.

The maximum pension at retirement cannot exceed 80 percent (75 percent for Tier 2) of the final rate of earnings.

An ECO pension is:

- 3 percent of the final rate of earnings for each of the first eight years of service, plus
- 4 percent for each year of service between eight and 12 years of service, plus
- 5 percent for years of service credit over 12.

The maximum pension at retirement cannot exceed 80 percent of the final rate of earnings.

A money purchase minimum pension is provided if it exceeds the normal formula amount. The money purchase minimum is the amount that may be purchased by 2.4 times the member's applicable accumulated contributions, including interest at 7.5%.

A reversionary pension option is provided to members at retirement. This option permits the member to revert a portion of their pension to one other person upon their death. This election is irrevocable.

An IMRF pension is paid for life.

SUMMARY OF BENEFITS AND CONDITIONS EVALUATED

DECEMBER 31, 2013

Early Retirement (not applicable to SLEP Tier 1 optional benefits or to ECO service)

Tier 1 Members: Regular members may retire as early as age 55 with a reduced pension. The reduction is the lesser of:

- one-fourth percent for each month the member is under age 60, or
- one-fourth percent for each month of service less than 35 years.

Tier 2 Members: Regular members may retire as early as age 62 with a reduced pension. The reduction is the lesser of:

- one-half percent for each month the member is under age 67, or
- one-half percent for each month of service less than 35 years.

SLEP members may retire as early as age 50 with a reduced pension. The reduction is one-half percent for each month the member is under age 55.

Early Retirement Incentive Program (ERI)

Eligibility and Amount: IMRF employers may offer an early retirement incentive (ERI) program to their employees who are over 50 (57 for Tier 2 regular and ECO members) years of age and who have at least 20 years of service credit. Eligible members may purchase up to five years of service credit and age. Employers must pay off the additional ERI liability within 10 years. Subsequent ERI programs may be offered by an employer after the liability for the previous ERI program is paid.

Member Cost: For each year of service credit purchased, members pay the current member contribution rate multiplied by the highest 12 consecutive months of salary (within ERI period).

Vesting

Tier 1 Members: Members are vested for pension benefits when they have at least eight years of qualifying service credit. SLEP members are vested for a SLEP pension when they have at least 20 years of SLEP service credit. SLEP members with more than eight years of service but less than 20 years of SLEP service will receive a Regular pension. Revised ECO members (those who joined the ECO plan after January 25, 2000) are vested with eight or more years of ECO service credit in the same elected county position. Revised ECO members with eight years of service but less than eight years in the same elected county office will receive a Regular pension.

Tier 2 Members: Members are vested for pension benefits when they have at least 10 years of qualifying service credit. SLEP members are vested for a SLEP pension when they have at least 10 years of SLEP service credit. Revised ECO members (those who join the ECO plan after January 25, 2000) are vested with ten or more years of ECO service credit in the same elected county position. Revised ECO members with at least 10 years of total service but less than 10 years of service in the same elected county office will receive a Regular pension.

Surviving Spouse Pension

For Regular and SLEP members: A surviving spouse's monthly pension is one-half (66-2/3 percent for Tier 2) of the member's pension.

For ECO members: A surviving spouse's monthly pension is 66-2/3 percent of the member's pension. This pension is payable once the surviving spouse becomes 50 years old. If the spouse is caring for the member's minor, unmarried children, the spouse will receive (age 50 requirement does not apply):

- A monthly pension equal to 30 percent of the ECO member's salary at time of death, plus
- 10 percent of the ECO member's salary at time of death for each minor, unmarried child. The maximum total monthly benefit payable to spouse and children cannot exceed 50 percent of the ECO member's salary at time of death, or
- A monthly pension equal to 66-2/3 percent of the pension the member had earned.

Surviving spouse pensions under all plans are increased each January 1. The increase is based on the original amount of the pension. The increase for the first year is prorated for the number of months the surviving spouse or the member received a pension. For Tier 1, the annual increase is three percent. For Tier 2, the annual increase is three percent or one-half the increase in the Consumer Price Index, whichever is less.

SUMMARY OF BENEFITS AND CONDITIONS EVALUATED

DECEMBER 31, 2013

Lump Sum Death-In-Service Benefit

Less than 1 year of service: Member contributions plus interest.

More than 1 year of service (or death in the line of duty): The sum of one times FRE (limited to pensionable earnings cap for Tier 2 members) and member contributions with interest.

These benefits are payable only if no surviving spouse pension is payable.

Lump Sum Death After Retirement Benefit

\$3,000. If there is no surviving spouse, any remainder of the deceased member's contributions and interest not paid out as a pension is also payable.

Children's Benefits

Regular and SLEP

Eligibility: Death of a member eligible to retire who has no surviving spouse, or death of a surviving spouse's beneficiary.

Amount: Equal to spouse's pension, divided equally among surviving children and payable to age 18.

ECO

Eligibility: Death of a member with minor children and no eligible spouse.

Amount: 20% of salary to each child, to a maximum of 50% of salary, payable to age 18.

If death occurs after termination of service, the total payment to the surviving spouse and children is limited to 75% of the member's pension.

Temporary Disability

Eligibility: Temporary disability for at least 30 days after one year of service and prior to age 70. Pre-existing conditions are excluded if service is under 5 years.

Amount: 50% of FRE less amounts payable from Social Security or Worker's Compensation.

Duration: Period equal to 1/2 credited service, not to exceed 30 months.

Total and Permanent Disability

Regular and SLEP

Eligibility: Payable after temporary disability period to members who are totally and permanently disabled and unable to engage in any gainful occupation.

Amount: 50% of FRE less amounts payable by Social Security.

Duration: To the later of (i) Social Security age, or (ii) age at disability plus 5 years.

ECO

Eligibility: Payable to members who are totally and permanently disabled from performing the duties of their office while in service as an elected county officer.

Amount: The greater of 50% of FRE or the alternate formula pension amount earned to date.

Duration: To the later of (i) Social Security age, or (ii) age at disability plus 5 years.

SUMMARY OF BENEFITS AND CONDITIONS EVALUATED

DECEMBER 31, 2013

IMRF service is credited during the disability period, except that under the revised ECO plan, the service that will be credited will be Regular or SLEP as appropriate, but not ECO.

Post-Retirement Increases

Tier 1 Members: Members in all plans receive an annual 3% increase based upon the original amount of the annuity. The increase for the first year is pro-rated for the number of months the member was retired.

Tier 2 Members: Members in all plans receive an annual increase based upon the original amount of the annuity of 3% or one-half of the increase in the Consumer Price Index whichever is less. For regular and ECO members the annual increases do not begin until the retiree reaches the age of 67 or after 12 months of retirement, whichever is later. For SLEP members the increases begin at age 60 or after 12 months of retirement, whichever is later.

13th Payment

A lump sum payment is made to eligible retirees and surviving spouses on July 1st. The amount depends on funds available from a designated employer contribution of 0.62% of payroll. No specific 13th payment amount is promised to any individual.

Member Contributions

Regular Members: 4 1/2% of earnings (3-3/4% base plus 3/4% for survivor benefits).

SLEP Members: 7 1/2% of earnings (6-3/4% base plus 3/4% for survivor benefits).

ECO Members: 7 1/2% of earnings (6-3/4% base plus 3/4% for survivor benefits).

Converting past service credit: ECO members can convert past regular service by contributing 3% of earnings plus interest for each month of Regular service credit converted. ECO members can convert past SLEP service by contributing 0% to 3% (depending on the original SLEP contribution) of earnings plus interest for each month of SLEP service credit converted. SLEP members can convert past regular service by contributing 3% of earnings plus interest for each month of Regular service credit converted.

Voluntary Additional: Up to 10% of earnings.

Refunds: Non-vested members who stop working for an IMRF employer can receive a lump sum refund of their IMRF member contributions without interest. Vested members can receive a lump sum refund of their IMRF member contributions if they stop working for an IMRF employer prior to age 55 (62 for Tier 2 regular members, 50 for Tier 2 SLEP members). Vested members age 55 or older (62 for Tier 2 regular members, 50 for Tier 2 SLEP members) may receive separation refunds if the member rolls over the refund into another defined benefit retirement plan for the purpose of purchasing service credit.

Members who retire without an eligible spouse (married to or in a civil union with the member at least one year before the member terminates IMRF participation) may receive a refund of their surviving spouse contributions with interest or an annuity.

If, upon a member's death, all of the member contributions with interest (7.5% per year) were not paid as a refund or pension to either the member or his or her spouse, the beneficiary will receive any balance in the member's account.

Caps on Reportable Wages

Under Tier 2, a member's wages are capped. No contributions are payable on wages above the cap. The wage cap is also applied when IMRF calculates your benefits. The cap increases each year by the lesser of 3% or one-half of the increase in the Consumer Price Index (urban) for the preceding September. If the CPI is zero, the wage cap is not increased. A wage cap of \$110,631 was used in the December 31, 2013 valuation.

SUMMARY OF COVERED POPULATION DATA DECEMBER 31, 2013

Data on persons covered by IMRF were reported to the Actuary as follows:

Member Status	No.	Valuation Payroll/Benefits	Average		
			Pay/ Benefits	Age	Service
Active Members					
Regular Tier 1	138,923	\$5,553,317,933	\$39,974	50.2	12.6
Regular Tier 2	30,054	753,129,943	25,059	37.9	1.2
SLEP Tier 1	3,671	255,437,466	69,583	43.1	14.3
SLEP Tier 2	533	23,773,639	44,603	32.7	2.2
ECO / ECO SLEP Tier 1	298	16,791,615	56,348	56.2	14.3
ECO / ECO SLEP Tier 2	2	28,840	14,420	57.3	3.0
Total Active	173,481	\$6,602,479,436	\$38,059	47.9	10.7
Inactive Members					
Regular Tier 1	169,075			46.4	5.1
Regular Tier 2	1,013			34.0	1.7
SLEP Tier 1	1,104			44.8	9.8
SLEP Tier 2	17			29.8	2.9
ECO / ECO SLEP Tier 1	181			55.3	13.7
ECO / ECO SLEP Tier 2	0			0.0	0.0
(Inactive and Active)	(34,641)				
Total Inactive	136,749			46.3	5.1
Retirees & Beneficiaries (Retired in multiple employers)	152,497 (45,500)				
Total Retired	106,997	\$1,472,091,648	\$13,758	72.2	
Total Population	417,227				
Prior Year Total	415,079				

There are a number of situations where members may be counted more than once. In particular, there are some members who are inactive with at least one employer and active with another employer. In order to avoid counting such individuals more than once, the inactive count is reduced by the number of such people as shown above. Other situations involving people who are inactive or retired with more than one employer can also lead to people being counted more than once in the totals above. Consequently, actual counts of people may be lower than the above counts would suggest.

Additional population statistics are presented on the following pages.

ACTIVE MEMBERS BY EMPLOYER TYPE
DECEMBER 31, 2013
REGULAR, SLEP, ECO COMBINED

Type of Employer	Rate Groups	Members			Payroll
		Number	% of Total	Cumulative Percent	
School Districts	858	82,994	48.1%	48.1%	\$ 2,340,293,585
Counties (Regular, SLEP,ECO)	269	30,643	17.7%	65.8%	1,391,933,709
Cities	303	18,487	10.7%	76.5%	979,607,718
Villages	465	14,171	8.2%	84.7%	811,459,353
Park Districts	200	7,737	4.5%	89.2%	306,206,463
Special Ed Districts	42	4,503	2.6%	91.8%	124,231,423
Townships	494	3,524	2.0%	93.8%	135,655,521
Library Districts	220	3,112	1.8%	95.6%	106,906,932
Forest Preserve Districts	13	942	0.5%	96.1%	46,774,505
Sanitary Districts	38	930	0.5%	96.6%	58,031,165
Consolidated Education Service Region	29	837	0.5%	97.1%	22,071,860
Towns	5	670	0.4%	97.5%	32,400,336
Intergovernmental Coop	55	636	0.4%	97.9%	42,621,261
County Hospital Districts	3	623	0.4%	98.3%	27,955,157
Mass Transit District (Taxing Authority)	4	602	0.3%	98.6%	30,837,358
Airport Authorities	12	290	0.2%	98.8%	16,111,004
Misc. Taxing Authority	8	256	0.1%	98.9%	16,547,460
Joint Spec Rec Assns	17	255	0.1%	99.0%	11,520,229
Mass Transit Instrumentality	3	245	0.1%	99.1%	9,193,209
Multi Co/Cons Health Dept.	4	234	0.1%	99.2%	7,771,030
Health Districts	4	223	0.1%	99.3%	9,235,603
Fire Protection Districts	59	204	0.1%	99.4%	12,208,435
Miscellaneous Instrumentality	16	181	0.1%	99.5%	10,729,815
Vocational System	40	145	0.1%	99.6%	5,047,714
Public Library System	2	143	0.1%	99.7%	5,819,733
County Conservation Districts	4	127	0.1%	99.8%	6,155,470
Public Hopusing Authority	8	114	0.1%	99.9%	4,348,759
Regional Planning Commission	1	88	0.1%	100.0%	5,951,859
Conservancy Districts	4	82	0.0%	100.0%	3,603,115
Educ Serv Centers	4	75	0.0%	100.0%	3,416,288
Water District	11	57	0.0%	100.0%	2,824,611
Public Housing Commission	6	57	0.0%	100.0%	2,400,905
County Road District	32	56	0.0%	100.0%	1,602,345
Special Ed Coop/Districts	13	55	0.0%	100.0%	3,929,712
Joint Education Projects	6	50	0.0%	100.0%	1,470,069
ROE Office	2	43	0.0%	100.0%	1,483,015
Water Supply/Sewr Comission	5	33	0.0%	100.0%	1,543,846
Mosquito Abatement District	7	29	0.0%	100.0%	1,841,518
Multi Twp Assessment Districts	14	12	0.0%	100.0%	274,320
Township Cemetary	13	11	0.0%	100.0%	251,042
Drainage District	2	5	0.0%	100.0%	211,984
Tuberculosis Sanitarium Districts	1	0	0.0%	100.0%	-
Employers with no Active Members or no Asset Information	513	0	0.0%	100.0%	-
Totals	3,809	173,481	100.0%	100.0%	\$6,602,479,436

**ACTIVE REGULAR MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals	
	0-7	8-9	10-14	15-19	20-24	25-29	30 & Up	No.	Valuation Payroll
15 - 19	195							195	\$ 2,643,410
20 - 24	4,879							4,879	100,257,774
25 - 29	10,882	285	50					11,217	321,579,229
30 - 34	9,630	1,522	1,483	58	1			12,694	465,351,201
35 - 39	8,099	1,377	3,288	987	31	2		13,784	538,702,718
40 - 44	9,460	1,583	3,300	2,307	871	66	5	17,592	676,151,347
45 - 49	10,050	2,114	4,418	2,764	1,962	964	70	22,342	860,215,285
50	2,118	548	1,131	681	429	402	85	5,394	207,101,949
51	2,031	503	1,243	804	473	421	180	5,655	223,481,187
52	2,024	522	1,311	836	502	449	251	5,895	230,471,529
53	1,973	528	1,340	938	572	421	347	6,119	244,259,985
54	1,850	464	1,295	989	566	438	451	6,053	246,126,404
55	1,742	502	1,296	973	583	401	466	5,963	235,600,617
56	1,601	441	1,283	1,041	626	405	446	5,843	234,652,133
57	1,616	401	1,280	1,048	677	389	471	5,882	234,012,612
58	1,431	379	1,055	1,021	667	364	425	5,342	213,406,673
59	1,344	328	946	941	660	394	380	4,993	199,960,063
60	1,199	355	904	906	621	365	345	4,695	184,279,088
61	1,188	312	795	849	559	342	321	4,366	171,498,754
62	983	280	783	676	549	330	283	3,884	153,270,932
63	847	248	610	559	402	259	244	3,169	121,717,281
64	689	222	528	432	373	213	188	2,645	101,637,194
65	598	191	418	330	309	205	149	2,200	80,917,915
66	498	135	339	248	200	128	98	1,646	59,172,544
67	496	129	250	217	161	104	85	1,442	50,770,881
68	313	69	194	118	84	77	69	924	31,631,406
69	229	73	155	93	62	44	56	712	22,299,462
70	243	64	145	95	52	42	40	681	20,918,577
Over 70	890	258	589	420	253	161	200	2,771	74,359,726
Totals	79,098	13,833	30,429	20,331	12,245	7,386	5,655	168,977	\$6,306,447,876

**ACTIVE SLEP MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals	
	0-7	8-9	10-14	15-19	20-24	25-29	30 & Up	No.	Valuation Payroll
20 - 24	53							53	\$ 1,997,695
25 - 29	376	7	3					386	19,857,085
30 - 34	440	133	116	3				692	40,161,133
35 - 39	207	68	258	96	1			630	39,957,487
40 - 44	142	76	199	316	84	2		819	56,384,015
45 - 49	73	31	123	171	232	104	3	737	54,953,623
50	11	3	10	32	28	41		125	9,558,536
51	5	3	15	20	27	28	6	104	8,512,819
52	4	2	19	16	20	26	3	90	6,813,245
53	12	5	13	16	12	10	7	75	5,507,024
54	5	7	10	12	16	17	2	69	4,989,556
55	9	1	8	14	12	12	7	63	4,630,601
56	8	3	5	4	11	13	4	48	3,632,714
57	4	3	6	7	10	11	6	47	3,482,807
58	7	2	12	10	9	8	4	52	3,536,760
59	8	3	7	5	5	4	3	35	2,194,831
60	6	3	6	8	6	7	5	41	2,822,978
61	8	2	9	7	4	5	2	37	2,683,721
62	3	1	4	6	3	2	3	22	1,628,876
63	2	1	4	3	2	2	2	16	1,281,434
64	4	1	3	4	1	1	3	17	1,224,023
65	2		3	3	3	3		14	1,054,346
66	4	3	3	1	1	1	1	14	953,326
67	1		2				2	5	458,583
68			1	2			1	4	384,785
69							1	1	56,180
70				1				1	81,710
Over 70	1		2	2	1	1		7	411,212
Totals	1,395	358	841	759	488	298	65	4,204	\$279,211,105

**ACTIVE ECO REGULAR MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals	
	0-7	8-9	10-14	15-19	20-24	25-29	30 & Up	No.	Valuation Payroll
25-29	2							2	\$ 72,939
30-34	2							2	148,377
35-39	7	1	2					10	961,143
40-44	10		3	3				16	896,869
45-49	7	2	8	2	4	1		24	1,519,343
50	1	1		1	1	2	2	8	456,279
51	7		5		2		1	15	1,012,664
52	4	2	1	2	1	1	2	13	501,942
53	3	1		1	2	1	1	9	527,078
54	1	1	1	3	2			8	440,313
55	6		2	3		1		12	879,596
56	1		2	6	1	2		12	673,400
57	5	1	4	5	2			17	777,116
58		1	2	4	2		1	10	640,915
59	8	3	1	1	2	1	4	20	1,263,217
60	2		2	2		1	2	9	318,842
61	5		4	1	6		1	17	1,152,148
62	2	3		1	1	1		8	295,859
63		1	4	1		1		7	344,236
64	3	1	3	2				9	369,966
65			2	5	1		1	9	464,748
66	1	1	2	2			1	7	268,318
67		1		3				4	125,667
68	2		2					4	36,219
69	1		1				1	3	205,220
70					1	1		2	102,577
Over 70	4	1	3	3	1	2	3	17	247,137
Totals	84	21	54	51	29	15	20	274	\$14,702,128

**ACTIVE ECO SLEP MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals	
	0-7	8-9	10-14	15-19	20-24	25-29	30 & Up	No.	Valuation Payroll
45-49	4		1	1				6	\$ 465,774
50	1	1	1					3	210,340
51					1			1	65,280
52			1					1	66,500
56			1					1	67,164
57	1		2					3	196,575
58				1				1	51,114
62			1					1	74,245
63			1	1		1	3	6	609,354
65	1				1			2	195,420
Over 70							1	1	116,561
Totals	7	1	8	3	2	1	4	26	\$2,118,327

**ALL ACTIVE MEMBERS BY YEARS OF SERVICE AND GENDER
DECEMBER 31, 2013**

Service Years	Active Member Count			Active Member Pays	
	Males	Females	Total	Total	Average
0	5,866	10,054	15,920	\$ 357,225,663	\$ 22,439
1	4,606	7,917	12,523	326,599,625	26,080
2	3,747	6,074	9,821	278,153,474	28,322
3	2,860	4,765	7,625	227,374,307	29,820
4	2,827	4,696	7,523	225,685,007	29,999
5	3,407	5,853	9,260	304,005,417	32,830
6	3,221	6,221	9,442	316,414,793	33,511
7	2,873	5,599	8,472	297,546,334	35,121
8	2,739	4,933	7,672	283,023,165	36,890
Sub-Total	32,146	56,112	88,258	2,616,027,785	29,641
9	2,308	4,231	6,539	247,566,285	37,860
10	2,159	3,685	5,844	228,149,333	39,040
11	2,143	3,925	6,068	242,481,214	39,961
12	2,272	4,535	6,807	271,827,508	39,934
13	2,183	4,334	6,517	272,979,415	41,887
14	2,045	4,051	6,096	260,915,214	42,801
15 & Up	19,527	27,825	47,352	2,462,532,682	52,005
Totals	64,783	108,698	173,481	\$6,602,479,436	\$38,059

**INACTIVE REGULAR MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals No.
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	
15-19	73							73
20-24	2,648	6						2,654
25-29	12,213	238						12,451
30-34	16,277	792	83	3			1	17,156
35-39	14,105	1,042	263	26			12	15,448
40-44	15,153	1,369	493	147	20	2	16	17,200
45-49	15,024	1,809	883	254	124	33	29	18,156
50	2,949	485	262	118	51	15	9	3,889
51	2,799	504	254	122	57	14	18	3,768
52	2,858	537	331	132	58	19	34	3,969
53	2,827	610	344	140	63	28	24	4,036
54	2,870	602	405	162	94	49	37	4,219
55	2,750	532	313	117	71	36	32	3,851
56	2,430	377	159	49	22	11	21	3,069
57	2,503	349	141	59	23	5	20	3,100
58	2,169	354	121	34	19	7	12	2,716
59	2,395	328	112	40	17	9	17	2,918
60	2,066	283	88	26	10	6	10	2,489
61	1,728	229	64	30	16	6	12	2,085
62	1,935	211	55	15	13	8	11	2,248
63	1,376	181	36	19	7	8	11	1,638
64	1,222	124	31	8	8	9	12	1,414
65	1,010	112	23	13	8	9	7	1,182
66	935	86	23	9	4	1		1,058
67	904	99	21	5	3	2	6	1,040
68	541	58	6	7	1	1	4	618
69	438	43	11	5			3	500
70	393	38	3	2	1			437
Over 70	2,343	113	26	13	5	1	16	2,517
Totals	116,934	11,511	4,551	1,555	695	279	374	135,899

**INACTIVE SLEP MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals No.
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	
15-19								
20-24	8							8
25-29	62	2						64
30-34	84	21	3					108
35-39	48	29	8					85
40-44	65	26	13	6	3		2	115
45-49	45	15	22	10	12	1	3	108
50	8	1	5				3	17
51	9	4	6	2			1	22
52	6	3	4	1	1		2	17
53	8	3	5	1	1			18
54	12	1	11	1	2	1	3	31
55	10	6	4	3				23
56	7	2						9
57	4	2	1	2			1	10
58	8		2	1			1	12
59	4		1					5
60	12	4		1	1			18
61	8		1					9
62	7	1					1	9
63	4		1				1	6
64	4					1	1	6
65	2						1	3
66								
67	1						1	2
68	1						1	2
69	2						1	3
70	4							4
Over 70	4			1				5
Totals	437	120	87	29	20	3	23	719

**INACTIVE ECO MEMBERS
BY ATTAINED AGE AND YEARS OF SERVICE
DECEMBER 31, 2013**

Attained Ages	Years of Service to Valuation Date							Totals No.
	0-4	5-9	10-14	15-19	20-24	25-29	30 & Up	
15-19								
20-24								
25-29								
30-34		1						1
35-39								
40-44	4	9	3					16
45-49	3	9	4	3			2	21
50	2	2	2	1				7
51	1	3		1				5
52		3	2				1	6
53	1	7	1		1			10
54	1	3	4	1	1			10
55	1	2		1			1	5
56	2		1	1				4
57	4	2		1				7
58	1	4	2					7
59	2							2
60	1			1	2			4
61	2	1		1				4
62			1					1
63								
64	2				1		1	4
65	1	2						3
66	1	1						2
67	1						1	2
68		1					1	2
69	1			1			1	3
70								
Over 70	2	1				1	1	5
Totals	33	51	20	12	5	4	6	131

**RETIREES AND BENEFICIARIES
DECEMBER 31, 2013**

Type of Retirement	Annual Amounts by Form of Payment					
	Regular		Level Payment Option		Total	
	No.*	Amount	No.*	Amount	No.*	Amount
Normal or Early						
Joint and 50% Survivor	77,723	\$ 770,809,932	21,657	\$ 251,594,052	99,380	\$ 1,022,403,984
Joint and 66% Survivor	617	\$13,108,392	156	\$4,155,708	773	17,264,100
Straight Life	25,649	257,036,484	6,380	83,432,568	32,029	340,469,052
Total	103,989	1,040,954,808	28,193	339,182,328	132,182	1,380,137,136
Disability	450	3,764,892	-	0	450	3,764,892
Surviving Beneficiaries	14,535	78,338,016	838	6,861,732	15,373	85,199,748
Annuitization of Surviving Spouse and SLEP benefits	4,247	2,686,716	-	0	4,247	2,686,716
Voluntary Contributions	245	303,156	-	0	245	303,156
Grand Total	123,466	\$1,126,047,588	29,031	\$346,044,060	152,497	\$1,472,091,648

* Number of records. There are 106,997 unique retirees.

Of the 4,247 records listed as receiving “Annuitization of Surviving Spouse and SLEP benefits”, 4,228 records are also in receipt of a separate retirement benefit.

Of the 245 records listed as receiving “Voluntary Contributions”, 239 records are also in receipt of a separate retirement benefit.

Thirteenth check payment amounts are not included in the above figures.

In the above chart, “Regular” refers to all forms of payment other than the level payment option. It does not connote “Regular” as opposed to SLEP and ECO.

**RETIREES AND BENEFICIARIES
BY ATTAINED AGE
DECEMBER 31, 2013**

Attained Ages	Number*			Annual Benefits
	Males	Females	Total	
Under 20	1	3	4	\$ 11,016
20 - 24	6	7	13	17,280
25 - 29	8	9	17	35,172
30 - 34	11	17	28	135,456
35 - 39	13	18	31	153,888
40 - 44	24	39	63	356,292
45 - 49	40	91	131	789,420
50 - 54	538	392	930	16,653,492
55 - 59	5,119	7,127	12,246	167,562,492
60 - 64	9,265	16,311	25,576	305,935,644
65 - 69	10,133	21,919	32,052	331,074,288
70 - 74	8,127	19,311	27,438	248,304,756
75 - 79	6,150	15,191	21,341	176,832,096
80 - 84	4,688	10,577	15,265	117,323,364
85 - 89	3,197	7,498	10,695	71,487,468
90 - 94	1,276	3,931	5,207	29,370,468
95 & Up	278	1,182	1,460	6,049,056
Totals	48,874	103,623	152,497	\$1,472,091,648

* Number of records. There are 106,997 unique retirees.

**RETIREES AND BENEFICIARIES BY YEAR OF RETIREMENT
DECEMBER 31, 2013**

Year of Retirement	Number*			Annual Benefits
	Males	Females	Total	
2013	3,994	7,532	11,526	\$ 127,856,712
2012	3,781	7,333	11,114	117,903,240
2011	3,648	6,743	10,391	121,804,320
2010	3,650	6,802	10,452	121,145,388
2009	3,117	5,308	8,425	96,947,160
2008	2,748	4,818	7,566	83,911,116
2007	2,675	5,464	8,139	81,854,568
2006	2,379	4,607	6,986	71,596,356
2005	2,365	4,625	6,990	67,845,264
2004	2,272	4,459	6,731	68,333,940
2003	2,339	4,258	6,597	64,020,516
2002	1,790	3,673	5,463	51,961,716
2001	1,551	3,749	5,300	40,831,908
2000	1,274	3,075	4,349	37,336,884
1995 - 1999	6,556	15,392	21,948	187,785,228
1990 - 1994	2,803	8,199	11,002	81,181,788
1985 - 1989	1,390	4,787	6,177	37,507,272
1980 - 1984	442	1,981	2,423	10,340,244
1975 - 1979	91	662	753	1,662,888
1970 - 1974	6	136	142	243,972
Before 1970	3	20	23	21,168
Total	48,874	103,623	152,497	\$1,472,091,648

* Number of records. There are 106,997 unique retirees.

**DATA REPORTED FOR ACTUARIAL VALUATIONS
COMPARATIVE SUMMARY**

Date December 31	Total Count	Active Members					Number		Ratio: Act/Ret. #
		Number	Average			Inactive	Retired		
			Age	Serv.	Annual Pay			Pay Increase	
1989	221,145	118,670	43.1	7.2	\$18,046	3.9 %	53,470	49,005	2.40
1990	228,964	121,234	43.3	7.3	19,000	5.3 %	57,016	50,714	2.40
1991	237,731	125,559	43.4	7.4	19,846	4.5 %	59,775	52,397	2.40
1992	242,730	126,557	43.7	7.7	20,816	4.9 %	61,964	54,209	2.30
1993	245,409	122,361	44.2	8.2	22,142	6.4 %	66,735	56,313	2.20
1994	265,456	133,803	43.8	7.8	22,021	(0.5)%	73,972	57,681	2.30
1995	262,232	136,617	43.8	8.2	22,661	2.9 %	65,914	59,701	2.29
1996	249,291	139,525	44.0	8.3	22,104	3.5 %*	48,274	61,492	2.27
1997	290,804	143,999	44.1	8.2	23,991	8.5 %	81,919	64,886	2.22
1998	303,869	148,610	44.3	8.2	24,871	3.7 %	88,173	67,086	2.22
1999	317,616	153,910	44.4	8.6	25,678	3.2 %	94,576	69,130	2.23
2000	330,313	157,836	44.6	8.2	26,514	3.4 %	102,082	70,395+	2.24
2001	343,842	163,886	44.9	8.3	27,477	3.9 %	108,338	71,618	2.29
2002	353,897	166,365	45.3	8.5	28,582	4.0 %	113,524	74,008	2.25
2003	361,010	166,439	45.7	8.8	29,709	3.9 %	118,093	76,478	2.18
2004	367,590	167,030	46.0	9.0	30,899	4.0 %	121,543	79,017	2.11
2005	377,251	169,867	46.3	9.1	31,640	2.4 %	125,761	81,623	2.08
2006	387,665	173,068	46.5	9.4	32,535	2.8 %	130,239	84,358	2.05
2007	398,659	176,495	46.7	9.5	33,607	3.3 %	134,687	87,477	2.02
2008	420,632	180,615	46.8	9.6	34,655	3.1 %	149,885	90,132	2.00
2009	412,435	180,643	47.1	9.8	35,771	3.2 %	138,530	93,262	1.94
2010	405,195	176,179	47.5	10.3	36,277	1.4 %	131,462	97,554	1.81
2011	409,415	175,233	47.7	10.4	36,701	1.2 %	132,282	101,900	1.72
2012	415,079	174,381	47.8	10.6	37,252	1.5 %	134,293	106,405	1.64
2013	417,227	173,481	47.9	10.7	38,059	2.2 %	136,749	106,997	1.62

* Changed method of recording earnings for 1996 valuation.

+ Restated subsequent to release of 2000 valuation.

Number of unique retirees. There are 152,497 retiree records.

SECTION C
FINANCIAL DATA

DEVELOPMENT OF FUNDING VALUE OF RETIREMENT SYSTEM ASSETS

Year Ended December 31	2012	2013	2014	2015	2016	2017
A. Funding Value Beginning of Year	\$25,711,287,584	\$27,491,809,785				
B. Market Value End of Year	27,995,289,198	33,203,014,332				
C. Market Value Beginning of Year	24,833,689,793	27,995,289,198				
D. Non-Investment/Administrative Net Cash Flow	(210,934,322)	(271,916,511)				
E. Investment Return						
E1. Market Total: B-C-D	3,372,533,727	5,479,641,645				
E2. Assumed Rate of Return	7.50%	7.50%				
E3. Assumed Amount of Return	1,920,436,532	2,051,688,865	-----Scheduled-----			
E4. Return Subject to Phase-In: E1-E3	1,452,097,195	3,427,952,780				
F. Phased-In Recognition of Investment Return						
F1. Current Year: 0.20 x E4	290,419,439	685,590,556	Unknown	Unknown	Unknown	Unknown
F2. First Prior Year	(219,399,448)	125,869,853	\$ 685,590,556	Unknown	Unknown	Unknown
F3. Second Prior Year	-	-	125,869,853	\$ 685,590,556	Unknown	Unknown
F4. Third Prior Year	-	-	-	125,869,853	\$ 685,590,556	Unknown
F5. Fourth Prior Year	-	-	-	-	125,869,854	\$ 685,590,556
F6. Funding Corridor Adjustment	-	-				
F7. Total Scheduled Phase-in of gain/(loss)	71,019,991	811,460,409	811,460,409	811,460,409	811,460,410	685,590,556
G. Acceptable Phase-in of Investment Return						
G1. Projected Funding Value without Phase-in: A+D+E3	27,420,789,794	29,271,582,139				
G2. Limit on Phase-in: B-G1	574,499,404	3,931,432,193				
G3. Acceptable Phase-in Amount	71,019,991	811,460,409				
H. Funding Value End of Year: A+D+E3+G3	\$27,491,809,785	\$30,083,042,548				
I. Difference Between Market and Funding Value	503,479,413	3,119,971,784	2,308,511,375	1,497,050,966	685,590,556	-
J. Recognized Rate of Return	7.8%	10.5%				
K. Market Rate of Return	13.6%	19.7%				
L. Ratio of Funding Value to Market Value	98.2%	90.6%				

The Funding Value of Assets recognizes assumed investment return (line E3) fully each year. Differences between actual and assumed investment return (line E4) are phased-in over a closed 5-year period subject to a 20% corridor. The acceptable phase-in amount (Item G3) is the minimum of Items F7 and G2, if G2 is positive. If G2 is negative, the acceptable phase-in amount is the greater of Items F7 and G2.

DEVELOPMENT OF MARKET VALUE ADJUSTMENT

In a single employer plan, the Market Value Adjustment would normally be the difference between the funding value of assets and the market value of assets. In IMRF, because of the need to allocate the Market Value Adjustment in an equitable manner among participating employers, certain extra steps are taken as shown below.

	Year Ended December 31	
	2013	2012
1. Funding Value of End of Year	\$ 30,083,042,548	\$ 27,491,809,785
2. Amounts not used in rate calculations		
a. Suspended Annuity Reserve	28,178,806	25,577,004
b. Disability Benefit Reserve	13,476,275	15,469,705
c. Death Benefit Reserve	16,537,023	12,903,323
d. Supplemental Benefit Reserve	1,354,337	707,286
e. Cases removed from rate calculations*	25,443,821	36,019,074
f. Estimated pending reserve transfers	-	-
g. Total	84,990,262	90,676,392
3. Remaining amount to allocate: (1)-(2g)	29,998,052,286	27,401,133,393
4. Total reported negative reserves	(226,298)	(2,652,111)
5. Amount available to positive reserves: (3)-(4)	29,998,278,584	27,403,785,504
6. Total Market Value of reported positive reserves	33,184,365,356	27,960,995,174
7. Market Value Adjustment: (5)-(6)	\$ (3,186,086,772)	\$ (557,209,670)

* Employers that are not included on the asset file submitted to the actuary. In general, these employers have no active members and no employer assets, but may have retired lives and/or inactive members.

The Market Value Adjustment is allocated among all employers that have a positive reserve balance (member plus employer plus retired life reserves), in proportion to each employer's reserve balance.

Even in years when the Funding Value of Assets equals the Market Value of Assets, a market value adjustment can be made due to the following reasons:

- Differences between the earnings and experience reserve and the investment loss reserve from the financial statements.
- Differences between employee contribution amounts in the financial statements versus data tapes.
- Differences between employer contribution amounts in the financial statements versus data tapes.

REPORTED MARKET VALUES

	Market Value		Percentage of Total	
	2013	2012	2013	2012
Investment Portfolio				
Fixed income	\$ 8,448,933,672	\$ 8,305,384,947	25.6%	29.8%
Short term	172,068,164	147,168,828	0.5%	0.5%
Foreign exchange contracts	2,177,750	(1,733,147)	0.0%	0.0%
Stocks	13,961,816,001	11,186,794,138	42.2%	40.2%
Bond funds	-	-	0.0%	0.0%
Stock funds and index funds	7,455,090,401	5,738,820,443	22.6%	20.6%
Options	-	-	0.0%	0.0%
Real estate	1,050,715,118	793,918,577	3.2%	2.9%
Alternative investments	1,307,714,189	1,272,632,775	4.0%	4.6%
Master trust reserve fund	758,648,826	626,698,308	2.3%	2.3%
Cash	-	-	0.0%	0.0%
Due from brokers	-	-	0.0%	0.0%
Due (to) brokers	(185,380,521)	(333,050,665)	(0.6)%	(1.2)%
Accrued investment income	54,430,964	82,662,664	0.2%	0.3%
Total Invested Assets	\$33,026,214,564	\$27,819,296,868	100.0%	100.0%
Receivables	185,227,682	170,537,092		
Cash	22,426,766	35,035,181		
Fixed Assets	11,857,913	5,138,712		
Total Market Value	\$33,245,726,925	\$28,030,007,853		
Liabilities				
Benefits & vouchers payable	42,712,593	34,718,655		
Securities Lending Payable	-	-		
Total Liabilities	42,712,593	34,718,655		
Nets Assets Available for Benefits	\$33,203,014,332	\$27,995,289,198		

Amounts on this page are preliminary year-end numbers and may not agree with final audited numbers reported by IMRF, but are shown for completeness.

SECTION D

ACTUARIAL METHODS AND ASSUMPTIONS

**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS
USED FOR IMRF ACTUARIAL VALUATIONS
ASSUMPTIONS ADOPTED BY RETIREMENT BOARD
AFTER CONSULTING WITH ACTUARY**

Economic Assumptions

The investment return rate assumed in the valuations was 7.5% per year, compounded annually (net after administrative expenses).

The **Wage Inflation Rate** assumed in this valuation was 4.00% per year. The Wage Inflation Rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes related to individual merit and seniority effects.

No specific **Price Inflation** assumption is required to perform this valuation, since there are no benefits that are linked to price increases. However, a price inflation assumption on the order of 3.0% to 3.5% would be consistent with the other economic assumptions.

The assumed **real rate of return** over wage inflation is defined to be the portion of total investment return that is more than the assumed total wage growth rate. Considering other economic assumptions, the 7.5% investment return rate translates to an assumed real rate of return over wage inflation of 3.5%. The assumed real rate of return over price inflation would be higher – on the order of 4.0% to 4.5%, considering both an inflation assumption and an average expense provision.

The **Active Member Population** is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at the wage inflation rate – 4.00% per year.

Pay increase assumptions for individual active members are shown for sample ages on pages D-8 and D-9. Part of the assumption for each age is for merit and/or seniority increase, and the other 4.00% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

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

Non-Economic Assumptions

Non-economic (decrement) assumptions include rates of mortality before and after retirement, rates of disability, rates of retirement, rates of other separation from employment and probabilities of an active member being married. The non-economic assumptions are based upon experience during the 2008-2010 period (please see report dated December 8, 2011), and were first used in the December 31, 2011 valuation. Decrement assumptions are shown for sample ages beginning on page D-3.

**SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS
USED FOR IMRF ACTUARIAL VALUATIONS
ASSUMPTIONS ADOPTED BY RETIREMENT BOARD AFTER CONSULTING
WITH ACTUARY**

Actuarial Valuation Method

An aggregate entry age actuarial cost method of valuation was used in determining most liabilities and normal cost. This means that an individual entry-age employer normal cost was determined for each benefit group (Regular Tier 1, Regular Tier 2, SLEP Tier 1, SLEP Tier 2, ECO Tier 1, ECO Tier 2) as a percent-of-payroll. The normal cost for each employer was calculated based on the aggregate Tier 1 and Tier 2 normal cost, weighted on the expected payroll of Tier 1 and Tier 2 members for the given employer. Larger employers have the option of an individual normal cost rate. The aggregate normal cost rate is then multiplied by the present value of future salary to determine the present value of future normal cost for each employer. The actuarial accrued liability is then calculated by subtracting the present value of future normal cost and present value of future employee contributions from the present value of future benefits.

Differences in the past between assumed experience and actual experience (“actuarial gains and losses”) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal & interest) which are level percent of payroll contributions.

Liabilities for lump sum death benefits and temporary disability benefits were determined using a term cost approach. Under this approach, the funding objective is to receive contributions each year that approximately equal the benefits being paid.

Employer contributions were assumed to be *paid in equal installments* throughout the year.

Present assets (cash & investments) at funding value are shown on page C-1.

Actuarial Valuation Method

The Funding Value of Assets (developed on page C-1) recognizes assumed investment return fully each year. Differences between actual and assumed investment income are phased-in over a closed 5-year period subject to a 20% corridor. The method also limits the adjustment to the expected actuarial return to the maximum amount of unrecognized gains or losses not yet reflected in the actuarial value of assets. In any year in which the actuarial value minus the market value of assets switches from a positive value to a negative value, or vice-versa, any prior gain/loss bases are eliminated and the smoothing mechanism restarts.

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

**ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
PROBABILITIES OF AGE & SERVICE RETIREMENT**

Tier 1

Age at Retirement	Regular		Regular		SLEP		ECO-Regular		ECO-SLEP
	Reduced Early		Normal		Normal		Normal		Normal
	Males	Females	Males	Females	Service less than 32 years	Service 32 years or more	Males	Females	Males & Females
50					23%	40%			23%
51					18%	40%			18%
52					13%	40%			13%
53					8%	40%			8%
54					23%	40%			23%
55	7.25%	5.75%	33%	27%	23%	40%	30%	30%	23%
56	7.25%	5.75%	25%	22%	18%	40%	25%	25%	18%
57	7.25%	5.75%	25%	22%	23%	40%	25%	25%	23%
58	7.25%	5.75%	25%	22%	33%	40%	25%	25%	33%
59	7.25%	5.75%	25%	22%	13%	40%	25%	25%	13%
60			12%	10%	8%	40%	5%	5%	8%
61			12%	10%	8%	40%	5%	5%	8%
62			22%	18%	23%	40%	20%	15%	23%
63			20%	18%	18%	40%	15%	15%	18%
64			20%	18%	18%	40%	15%	15%	18%
65			25%	23%	23%	40%	30%	20%	23%
66			30%	23%	23%	40%	25%	15%	23%
67			25%	23%	23%	40%	20%	15%	23%
68			20%	18%	23%	40%	13%	13%	23%
69			20%	18%	23%	40%	13%	13%	23%
70			20%	18%	100%	100%	13%	13%	100%
71-79			20%	18%	100%	100%	13%	13%	100%
80 & Over			100%	100%	100%	100%	100%	100%	100%

For terminated vested members, members were assumed to retire as follows:

- Regular Tier 1 members were assumed to retire at age 60 or attained age if later;
- Regular Tier 2 members were assumed to retire at age 67 or attained age if later;
- SLEP Tier 1 members with less than 20 years of service were assumed to retire at age 60;
- SLEP Tier 1 members with 20 or more years of service were assumed to retire at age 50;
- SLEP Tier 2 members with less than 20 years of service were assumed to retire at age 67;
- SLEP Tier 2 members with 20 or more years of service were assumed to retire at age 55;
- ECO Tier 1 members were assumed to retire at age 55 or attained age if later;
- ECO Tier 2 members were assumed to retire at age 62 or attained age if later.

**ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
PROBABILITIES OF AGE & SERVICE RETIREMENT**

Tier 2

Age	Regular								SLEP					
	Male				Female				Male			Female		
	Normal			Early	Normal			Early	Normal		Early	Normal		Early
	Service Less than 30 Years	Service Between 30 and 35 Years	Service 35 Years or More		Service Less than 30 Years	Service Between 30 and 35 Years	Service 35 Years or more		Service Less than 30 Years	Service 30 Years or More		Service Less than 30 Years	Service 30 Years or More	
50											12%			12%
51											9%			9%
52											7%			7%
53											4%			4%
54											12%			12%
55								60%	80%			60%	80%	
56								18%	55%			18%	55%	
57								23%	55%			23%	55%	
58								33%	55%			33%	55%	
59								13%	55%			13%	55%	
60								8%	55%			8%	55%	
61								8%	55%			8%	55%	
62			75%	15%			75%	13%	23%	55%		23%	55%	
63			75%	15%			75%	13%	18%	55%		18%	55%	
64			75%	15%			75%	13%	18%	55%		18%	55%	
65			75%	15%			75%	13%	23%	55%		23%	55%	
66			75%	15%			75%	13%	23%	55%		23%	55%	
67	30%	50%	75%		25%	50%	75%		23%	55%		23%	55%	
68	30%	50%	75%		25%	50%	75%		23%	55%		23%	55%	
69	25%	50%	75%		20%	50%	75%		23%	55%		23%	55%	
70	20%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
71	20%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
72	20%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
73	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
74	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
75	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
76	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
77	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
78	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
79	18%	50%	75%		18%	50%	75%		100%	100%		100%	100%	
80+	100%	100%	100%		100%	100%	100%		100%	100%		100%	100%	

ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
PROBABILITIES OF SEPARATION FROM ACTIVE MEMBER STATUS

Tier 1 and Tier 2

Service	% Separating Next Year					
	Regular		ECO		SLEP	ECO-SLEP
	Males	Females	Males	Females		
0	24.0%	28.5%	20.0%	15.0%	16.0%	16.0%
1	18.0%	21.0%	12.0%	10.0%	10.0%	10.0%
2	13.0%	15.0%	10.0%	8.0%	7.7%	8.0%
3	10.5%	12.0%	9.0%	7.0%	6.8%	6.0%
4	8.5%	10.0%	8.0%	6.0%	5.0%	5.0%
5	7.2%	8.3%	7.0%	5.0%	4.2%	4.5%
6	6.0%	6.8%	6.0%	4.0%	3.5%	4.0%
7	5.5%	6.2%	5.5%	3.5%	N/A	N/A
Age	8 or More Years of Service		8 or More Years of Service		7 or More Years of Service	7 or More Years of Service
30	4.1%	6.1%	5.5%	3.5%	3.2%	1.5%
35	3.3%	4.9%	5.5%	3.5%	2.1%	1.5%
40	2.7%	3.9%	5.5%	3.5%	1.7%	1.5%
45	2.3%	3.2%	5.5%	3.5%	1.7%	1.5%
50	2.0%	2.7%	5.5%	3.5%	1.7%	1.5%

ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
ACTIVE MEMBER PROBABILITIES OF DEATH AND DISABILITY

Tier 1 and Tier 2

Sample Ages	% Dying			
	Regular & ECO		SLEP & ECO-SLEP	
	Male	Female	Male	Female
20	0.02%	0.01%	0.02%	0.01%
25	0.02%	0.01%	0.02%	0.01%
30	0.03%	0.01%	0.03%	0.01%
35	0.05%	0.02%	0.06%	0.02%
40	0.06%	0.02%	0.07%	0.02%
45	0.08%	0.03%	0.09%	0.03%
50	0.10%	0.05%	0.12%	0.05%
55	0.17%	0.09%	0.20%	0.09%
60	0.34%	0.18%	0.39%	0.18%
65	0.67%	0.35%	0.77%	0.35%
70	1.15%	0.61%	1.31%	0.61%
75	2.00%	0.96%	2.28%	0.96%
80	3.69%	1.59%	4.21%	1.59%

Sample Ages	% Disabled							
	Regular		ECO		SLEP		ECO-SLEP	
	Male	Female	Male	Female	Male	Female	Male	Female
20	0.01%	0.00%	0.01%	0.01%	0.01%	0.02%	0.02%	0.02%
25	0.01%	0.00%	0.01%	0.01%	0.02%	0.03%	0.03%	0.03%
30	0.01%	0.00%	0.01%	0.01%	0.02%	0.05%	0.05%	0.05%
35	0.02%	0.01%	0.03%	0.02%	0.04%	0.07%	0.07%	0.07%
40	0.03%	0.01%	0.04%	0.03%	0.05%	0.10%	0.10%	0.10%
45	0.05%	0.02%	0.06%	0.04%	0.08%	0.14%	0.14%	0.14%
50	0.07%	0.03%	0.09%	0.06%	0.11%	0.21%	0.21%	0.21%
55	0.11%	0.05%	0.15%	0.10%	0.16%	0.29%	0.29%	0.29%
60	0.14%	0.09%	0.19%	0.17%	0.14%	0.27%	0.27%	0.27%
65	0.15%	0.11%	0.20%	0.20%	0.10%	0.18%	0.18%	0.18%
70	0.13%	0.09%	0.17%	0.17%	0.06%	0.11%	0.11%	0.11%
75	0.09%	0.07%	0.12%	0.12%	0.02%	0.03%	0.03%	0.03%
80	0.08%	0.06%	0.10%	0.10%	0.00%	0.00%	0.00%	0.00%

**ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
RETIREE, BENEFICIARY, TERMINATED VESTED
AND DISABLED LIFE MORTALITY**

Tier 1 and Tier 2

Sample Ages	% Dying Next Year			
	Non-Disabled Lives		Disabled Lives	
	Males	Females	Males	Females
40	0.1103%	0.0480%	0.1784%	0.1094%
45	0.1393%	0.0749%	0.2963%	0.2129%
50	0.1784%	0.1094%	0.5864%	0.4207%
55	0.2963%	0.2129%	1.1528%	0.8078%
60	0.5864%	0.4207%	1.9696%	1.3933%
65	1.1528%	0.8078%	3.4246%	2.2020%
70	1.9696%	1.3933%	6.3176%	3.6677%
75	3.4246%	2.2020%	11.5488%	6.3171%
80	6.3176%	3.6677%	20.3136%	11.4082%

Sample Ages	Life Expectancy Years			
	Non-Disabled Retired Lives		Disabled Lives	
	Males	Females	Males	Females
40	40.8	45.1	31.3	35.4
45	36.0	40.2	26.6	30.6
50	31.3	35.4	22.1	26.1
55	26.6	30.6	17.8	21.7
60	22.1	26.1	14.0	17.7
65	17.8	21.7	10.5	14.1
70	14.0	17.7	7.5	10.8
75	10.5	14.1	5.2	7.9
80	7.5	10.8	3.5	5.7

For non-disabled lives, the mortality rates are from the RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2020 using projection scale AA. For men 120% of the table rates were used. For women 92% of the table rates were used. For disabled lives, the mortality rates are the rates applicable to non-disabled lives set forward 10 years.

**ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
PAY INCREASES FOR REGULAR AND ECO ACTIVE MEMBERS**

Tier 1 and Tier 2

% Increase in Pay Next Year					
6 or More Years Service				Additional Increase For Those With Less Than 6 Years of Service	
Age	Merit & Longevity	Economic	Total	Service	% Increase
25	2.0%	4.0%	6.0%	0	7.0%
30	1.7%	4.0%	5.7%	1	5.0%
35	1.2%	4.0%	5.2%	2	3.5%
40	0.9%	4.0%	4.9%	3	3.0%
45	0.7%	4.0%	4.7%	4	2.0%
50	0.6%	4.0%	4.6%	5	1.5%
55	0.5%	4.0%	4.5%		
60	0.4%	4.0%	4.4%		

For a person with 6 or more years of service, the assumed pay increase during the coming year is found in the 6 or more years of service total column. For a person with less than 6 years of service, the % increase from the less than 6 years column that corresponds to the person's service is added to the increase from the 6 or more years of service total column that corresponds to the person's age to get the total assumed increase. For example, a 40-year-old with 8 years of service is assumed to get a 4.9% pay increase during the coming year. But a 40-year-old with 4 years of service is assumed to get a 6.9% increase (4.9% + 2.0%).

ACTUARIAL ASSUMPTIONS
DECEMBER 31, 2013
PAY INCREASES FOR SLEP AND ECO-SLEP ACTIVE MEMBERS

Tier 1 and Tier 2

% Increase in Pay Next Year			
Years of Service			
Service	Economic	Merit & Longevity	% Total Increase
1	4.00%	12.00%	16.00%
2	4.00%	9.00%	13.00%
3	4.00%	4.30%	8.30%
4	4.00%	3.80%	7.80%
5	4.00%	3.00%	7.00%
6	4.00%	2.50%	6.50%
7	4.00%	1.50%	5.50%
8	4.00%	1.25%	5.25%
9	4.00%	1.00%	5.00%
10	4.00%	0.75%	4.75%
11	4.00%	0.75%	4.75%
12	4.00%	0.75%	4.75%
13	4.00%	0.50%	4.50%
14	4.00%	0.50%	4.50%
15	4.00%	0.50%	4.50%
16	4.00%	0.50%	4.50%
17	4.00%	0.50%	4.50%
18	4.00%	0.50%	4.50%
19	4.00%	0.50%	4.50%
20	4.00%	0.50%	4.50%
21	4.00%	0.50%	4.50%
22	4.00%	0.50%	4.50%
23	4.00%	0.50%	4.50%
24	4.00%	0.50%	4.50%
25	4.00%	0.50%	4.50%
26	4.00%	0.50%	4.50%
27	4.00%	0.50%	4.50%
28	4.00%	0.50%	4.50%
29	4.00%	0.50%	4.50%
30	4.00%	0.50%	4.50%

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Expenses:	Assumed investment return is net of administrative and investment expenses.
Marriage Assumption:	80% of male and 70% of female participants are assumed to be married for purposes of death-in-service and death after retirement benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Pay Increase Timing:	Beginning of (Calendar) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
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.
Benefit Service:	Exact fractional service on the decrement date is used to determine the amount of benefit payable.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
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 a 50% joint and survivor benefit for Regular and SLEP Tier 1 members and 66 2/3% for Regular and SLEP Tier 2 members and ECO members. Factors for determining optional forms of payment are based on 120% of the current mortality rates (50% unisex) and 7.5% interest.
Surviving Spouse Refunds:	For those individuals who are not assumed to be married at retirement, the surviving spouse contributions are assumed to be refunded.
SLEP Refunds:	SLEP participants who are assumed to retire with insufficient service to qualify for SLEP benefits are assumed to receive a refund of their SLEP contributions.
SLEP Conversions:	It was assumed that all active participants in the SLEP program will convert all eligible service (up to 10 years). Additionally, it was assumed that these members would contribute the difference in both member and employer rates for each year converted.
ECO Conversions:	It is assumed that active participants in the ECO program will convert all eligible service up to the point the maximum ECO benefit would be achieved.
Final Rate of Earnings (FRE):	The FRE is determined by projecting the current salary to retirement and averaging the salary over the appropriate number of years. The current FRE is used if this produces a higher value. For Tier 2 members, FRE is capped at \$110,631 and increases by the lesser of 3% and one-half of CPI.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Refunds for Terminated Vested Members:	Members are assumed to elect annuities.
Other:	Disability decrements operate during retirement eligibility.
Contingency Reserve:	A contingency reserve of 0.25% of payroll is added to the normal cost to account for various factors (changes in FRE, data adjustments, rehires, service purchases, etc.)
Post-Retirement Increases:	For Tier 2, pensions increase by the lesser of 3% or one-half of the increase in the Consumer Price Index (urban) for the preceding September. If the CPI is zero, pension benefits are not increased. In the December 31, 2013 valuation annual pension increases were assumed to grow at an annual rate of 1.75%. Tier 1 increases are not related to CPI.
Wage Cap Growth:	Under Tier 2, a member's wages are capped. The wage cap increases each year by the lesser of 3% or one-half of the increase in the Consumer Price Index (urban) for the preceding September. If the CPI is zero, the wage cap is not increased. A wage cap of \$110,631 was used for Tier 2 members in the December 31, 2013 valuation. In the December 31, 2013 valuation, the wage cap was assumed to grow at an annual rate of 1.75%.

**FINANCING UNFUNDED ACCRUED LIABILITIES
AND FULL FUNDING CREDITS
DECEMBER 31, 2013 VALUATIONS**

The following procedures were applied to financing liabilities in the valuation.

Financing Periods if employer is less than 120% funded on a market basis.

1. Instrumentalities: 10-year rolling period.
2. Early Retirement Incentive Plan liabilities: a period up to 10 years selected by the Employer upon adoption of ERI.
3. For taxing bodies (Regular, SLEP, and ECO rate Groups): 28-year closed period until remaining period reaches 15 years (then 15-year rolling period).

Financing Period if employer is over 120% funded on a market basis.

4. Irrespective of the size of the employer or the funding level, grant the employer an option to amortize overfunding over 120% over a 5-year period.
5. For employers with 50 or more employees, grant the employer an option to adopt a minimum contribution rate until the overfunding is reduced to 120%.
6. Irrespective of the size of the employer, surplus in a plan can be used to satisfy early retirement incentive costs so long as the reserve balance does not drop below 120%.

SLEP supplemental liabilities attributable to Public Act 94-712 were financed over 23 years for most employers (two employers were financed over 32 years). The mass production valuation applies rules 1 through 3. For rules 4 through 6, the period provided on the IMRF rate tape is used for valuation purposes and IMRF staff reviews each case individually to see if changes are needed to comply with Board policy. Employers also have the option to phase into a rate change that is more than 10% higher than the prior year (provided they pay the full cost for current service).

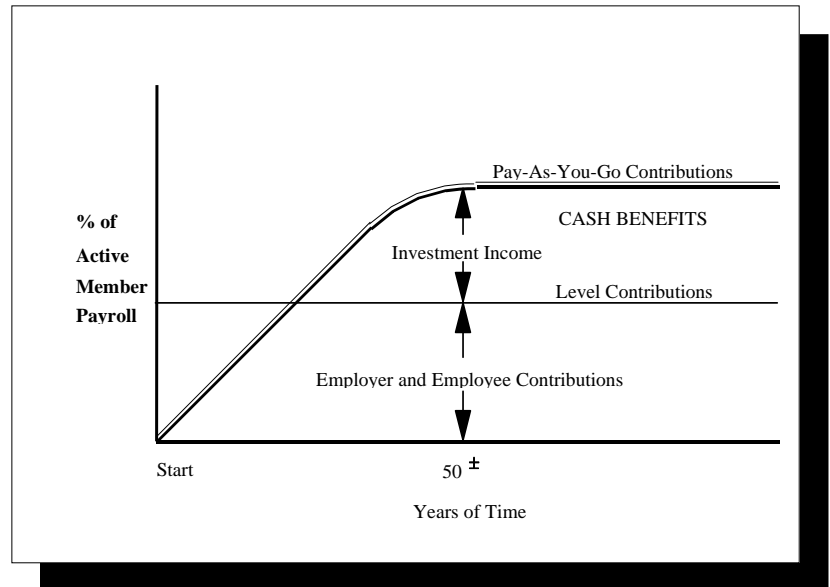
SELECTION OF ASSUMPTIONS USED IN ACTUARIAL VALUATIONS

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 THE BOARD 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 expected market returns for various asset classes and 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 Board of Trustees, and other professionals, and the Board then makes a final choice from the various reasonable alternatives.

SECTION E
FINANCIAL PRINCIPLES

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES OF IMRF

Promises Made, and To Be Paid For: As each year is completed, IMRF in effect hands an “IOU” to each member then acquiring a year of service credit. The “IOU” says: “The Illinois Municipal Retirement Fund owes you one year’s worth of retirement benefits, payments in cash commencing when you retire.”

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 Illinois at the time the IOU becomes a cash demand, years and often decades later?

The law governing IMRF financing intends that this year’s taxpayers contribute the money to cover the IOUs being handed out this year. With this financial objective, ***the employer contribution rate is expected to remain approximately level from generation to generation of taxpayers.***

There are systems which have a design for deferring contributions to future taxpayers. Lured by a lower contribution rate now, they put aside the consequence that the contribution rate must then relentlessly grow to a level much higher than would be required if a level contribution pattern were followed.

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. ***Investment income*** ultimately becomes ***the 3rd and largest contributor*** for benefits to members, and is interlocked with the contribution amounts required from members and employers.

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

Normal Cost (the cost of members’ service being rendered this year)

... plus ...

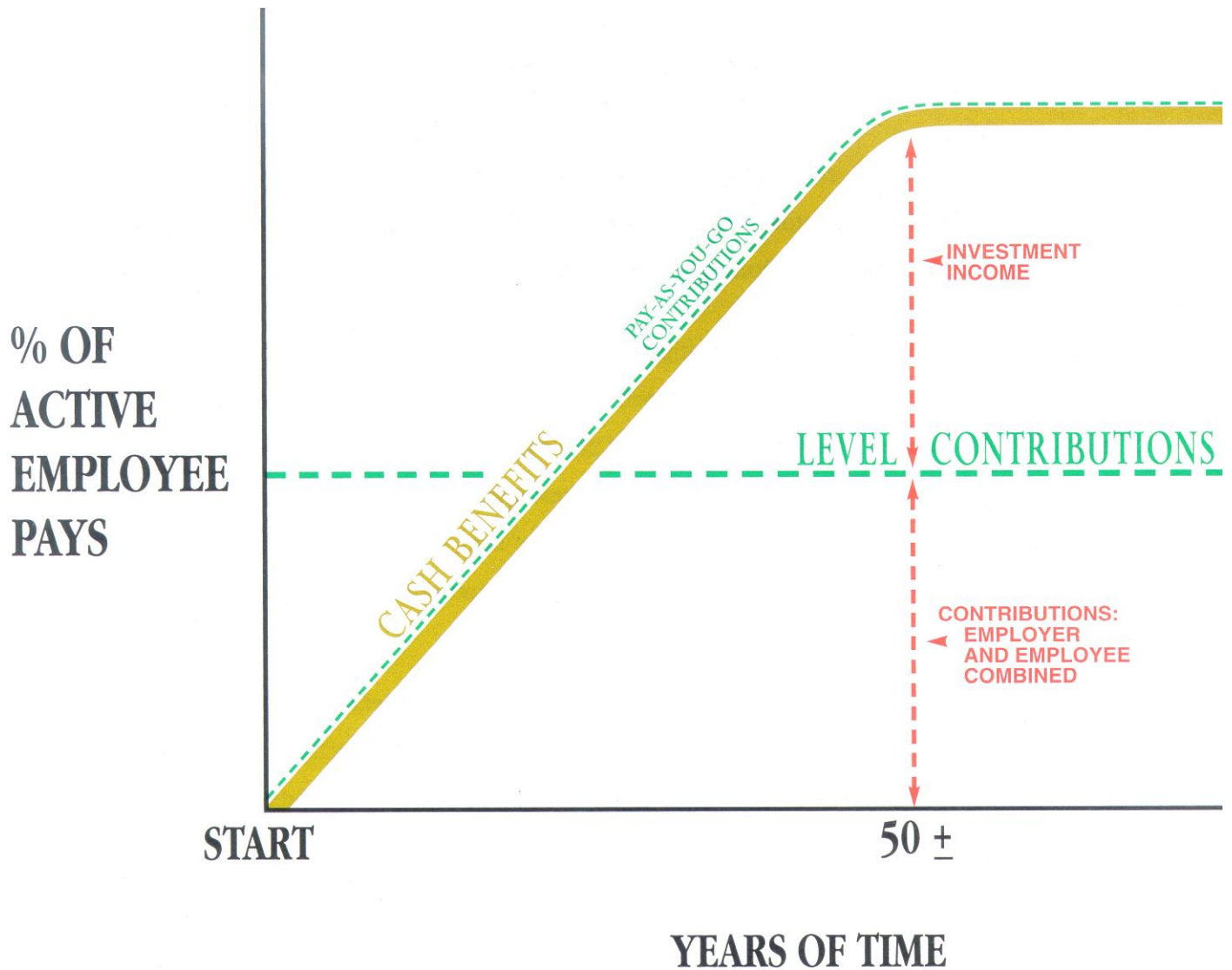
Interest at the assumed real rate of return on Unfunded Actuarial Accrued Liabilities (unfunded actuarial accrued liabilities are the difference between: accrued liabilities for service already rendered; and the accrued assets of IMRF).

Computing Contributions to Support Fund Benefits: From a given schedule of benefits and from member and asset data, the actuary calculates 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 will earn; the rates of withdrawal of active members who leave covered employment; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement. These rates cannot be known today. Consequently, in 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. The assumptions are established by the Board of Trustees after receiving the advice of the actuary.

Reconciling Differences Between Assumed Experience and Actual Experience: Once actual experience has occurred and has been observed, it will not coincide exactly with assumed experience, regardless of the skill of the actuary and the many calculations made. The future cannot be predicted.

IMRF copes with these continually changing differences by having annual 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.* Once every three years, an Experience Study is conducted to fully review differences between actual and assumed experience and recommend changes to our assumed experience, where appropriate.



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 previous 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) which is thus an *increasing contribution method*; and, the *level contribution method* which attempts to equalize contributions between the generations.

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

A. **Census Data**, including:

Retired lives now receiving benefits

Former members with vested benefits not yet payable

Active members

B. + **Asset data** (cash & investments)

C. + **Benefit provisions** that establish eligibility and amounts of payments to members

D. + **Assumptions concerning future experience** in various risk areas

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

F. + **Mathematically combining the assumptions, the funding method, and the data**

G. = Determination of:

Plan Financial position and/or

New Employer Contribution Rates

GLOSSARY

Actuarial Accrued Liability - The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost (employer and employee). Sometimes referred to as “accrued liability” or “past service liability.”

Accrued Service - The service credited under the plan which was rendered before the date of the actuarial valuation.

Accumulated Benefit Obligation - The actuarial present value of vested and non-vested benefits based on service to date and past and current salary levels.

Actuarial Assumptions - Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

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

Actuarial Equivalent - A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value - The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Present Value of Credited Projected Benefits or Pension Benefit Obligation - The present value of future benefits based on service to date and the effect of projected salary increases.

Actuary - A person who is trained in the applications 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 A.S.A. and ultimately to Fellowship with the designation F.S.A.

Amortization - Paying off an interest-bearing liability by means of periodic payments, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss) - A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

ERI - Early Retirement Incentive Plan.

Funded Percent - A measure of the ratio of the funding value of assets to the actuarial accrued liability.

Normal Cost - The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Plan Termination Liability - The actuarial present value of future plan benefits based on the assumption that there will be no further accruals for future service and salary. The termination liability will generally be less than the liabilities computed on a “going concern” basis and is not normally determined in a routine actuarial valuation.

Reserve Account - An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability - The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

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



March 31, 2014

Mr. Mark Nannini
Chief Financial Officer
Illinois Municipal Retirement Fund
2211 York Road - Suite 500
Oak Brook, Illinois 60523-2374

Re: December 31, 2013 Actuarial Valuation

Dear Mark:

Enclosed are 40 copies of the report. We have also included an unbound master copy in case you need to make additional copies.

We look forward to reviewing the results of this year's valuations at the Board meeting.

Sincerely,

Mark Buis, FSA, EA, MAAA

MB:sc
Enclosures