
**The Report of the
COMPILED 34th ANNUAL ACTUARIAL VALUATIONS
Based Upon Data as of February 28, 2002
and
50 YEAR ACTUARIAL PROJECTIONS
Beginning February 28, 2002
for the
Participating Employers
of the
MISSOURI LOCAL GOVERNMENT
EMPLOYEES RETIREMENT SYSTEM**

**Submitted to
THE BOARD OF TRUSTEES
Missouri Local Government Employees Retirement System**

Gabriel, Roeder, Smith & Company

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October 4, 2002

The Board of Trustees
Missouri Local Government Employees Retirement System
Jefferson City, Missouri

Submitted in this report are the compiled results of the **34th annual actuarial valuations and 50-year actuarial projections** for the Missouri Local Government Employees Retirement System, as amended through February 28, 2002.

The date of the valuations was February 28, 2002. The projections cover the 50-year period beginning February 28, 2002.

Actuarial valuations of individual participating employers are made for the purposes of (i) revising employer contribution rates and (ii) examining the reserve strength of each separately experience-rated group. These individual valuations are made annually for each employer who was participating as of the preceding December 31. Such valuations were made for **791 groups (477 employers)**.

Actuarial valuations are also made of retired life benefits being paid from the Benefit Reserve Fund to determine the financial condition of this pooled Fund.

The valuations were based upon data furnished us concerning members, retirees and beneficiaries.

The financial assumptions used in making the valuations are shown in the Appendix of this report. Assumptions concerning future experience are needed for computing employer contribution rates. As time passes and actual experience develops, assumed and actual experiences are compared. From time to time one or more of the assumptions about the future are changed by the Board after consulting with the actuary. The non-economic assumptions used in performing the 2002 valuations were adopted by the Board in conjunction with a five year experience investigation for the period ending February 29, 2000. The last major changes were in economic assumptions, and these were first used in the 2001 valuations.

Your attention is directed particularly to the COMMENTS on pages 2 and 3, and to the SHORT CONDITION TEST on page B-6.

Based upon the 2002 valuations it is our opinion that **LAGERS continues in sound condition in accordance with actuarial principles of level cost financing**. Overall financial condition is very strong.

Respectfully submitted,

Mita D. Drazilov, A.S.A. M.A.A.A. Judith A. Kermans, E.A., M.A.A.A.

MDD:JAK:rmg

Comments on Valuation Results

Individual valuations of participating employers. There were 791 new employer contribution rates computed as of February 28, 2002. (Twenty-Seven groups had no active employees and a dollar contribution was calculated for them. These twenty-seven groups are excluded from the totals on this page.) Of the 791 new rates, 326 were decreases from the previous rates, 308 were increases from the previous rates and 157 were unchanged. Further detail is shown in section G. A ten year comparative schedule follows:

Valuation Date	Decreases	Unchanged	Increases	Total
2-28-93	281	87	266	634
2-28-94	246	96	303	645
2-28-95	403	67	185	655
2-29-96*	133	32	500	665
2-28-97	356	89	241	686
2-28-98	409	97	205	711
2-28-99	382	117	232	731
2-29-00	570	71	106	747
2-28-01*	605	97	75	777
2-28-02	326	157	308	791

* Revised financial assumptions and/or funding method.

Decreases in employer contribution rates are seldom a problem. Increases can be a problem. Downward pressure on computed contribution rates resulted from (1) investment return on an actuarial value of assets basis being greater than the assumed rate and (2) additional cost basis June 30, 2001 interest credits being allocated to the Employer Accumulation Fund due to the February 28, 2001 funded status of the Benefit Reserve Fund. Upward pressure resulted for some valuation groups due to other non-investment experience (including larger pay increases than assumed) as well as membership changes for some small valuation groups.

While investment return on an actuarial value of assets basis exceeded the assumed rate as of February 28, 2002, market return has been negative the past two valuation years. Unrecognized investment losses as of February 28, 2002 will be recognized over the next four years. If these unrecognized investment losses are not offset by future market gains (i.e. market returns in excess of the assumed rate), there will be an upward pressure on computed employer contribution rates.

Retired life experience. Financial activities were restructured in 1986. Sufficient reserves continue to provide benefit increases at the 4% maximum average annual rate, subject to inflation caps. The Benefit Reserve Fund funded ratio declined from 143.9% to 140.9% as of February 28, 2002. It is expected to decline further in 2003 due to current unrecognized investment losses and June 30, 2002 interest credits. Page B-11 has detail.

Reserve Strength of Each Group Being Separately Experience-Rated

"Reserve strength" means the portion of accrued liabilities which are covered by accrued assets. The larger the portion, the greater the reserve strength. If liabilities become 100% covered by assets, the group is termed "fully funded."

At the time a local government joins LAGERS the reserve strength of that new employer is zero because there are no assets, while liabilities (for past service) have been generated.

Contributions to LAGERS are patterned so that reserve strength increases bit by bit, year by year.

However, this underlying pattern is being modified each year as actual financial experiences occur. Experiences more favorable than assumed cause reserve strength to increase more than planned, while less favorable experiences reduce reserve strength. Like snowflakes, no two groups have identical experiences.

In addition, reserve strength is lowered when a local government adopts a higher benefit formula (larger liabilities for past service are generated).

The hundreds of separately experience-rated groups within LAGERS have considerable differences in reserve strength. These differences are summarized on page B-8.

Financially, LAGERS consists of a large number of diverse groups, not a large number of clones of a single LAGERS average.

Section A
Financial Principles

Financial Principles and Operational Techniques of LAGERS

Promises Made, and To Be Paid For. As each year is completed, the system in effect hands an "IOU" to each member then acquiring a year of service credit -- the "IOU" says: "The Missouri Local Government Employees Retirement System owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related *key financial questions* are:

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

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

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

LAGERS intends that this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, **the employer contribution rate will remain approximately level from generation to generation** -- our children and our grandchildren will contribute the same percents of pay we contribute now.

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

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and the income produced when the assets are invested. **Invested assets are a by-product and not the objective.** **Investment income** becomes in effect **the 3rd contributor** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

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

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

... plus ...

Interest on Unfunded Actuarial Accrued Liabilities (unfunded actuarial accrued liabilities are the difference between: liabilities for members' service already rendered; and the accrued assets of the governmental unit in the plan).

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

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

In making an actuarial valuation the system must assume what the above experience will be, for the next year and for decades in the future. Only the subsequent actual experience of the System can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions and regardless of the skill of the actuary and the calculations made. The future can be predicted with considerable but not complete precision, except that inflation seems to defy reliable prediction.

LAGERS copes with these continually changing differences by having ***annual actuarial valuations***, separately for each participating employer group. Each annual actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continually changing employer contribution rates.

The size of an annual change in employer rate is usually less than one percent of payroll (up or down), particularly for the larger groups, where happenings to one or two employees have little effect on the group's status.

To avoid causing employer budget problems, LAGERS provides a maximum annual increase of one percent of payroll for any one participating employer, but this limit is seldom needed. Beginning with the February 28, 1999 valuations, the maximum allowed annual decrease in an employer contribution rate is also one percent of payroll, unless it is clear that a larger decrease will likely be long term in nature.

The Actuarial Valuation Process

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

- A. ***Covered people data***, furnished by plan administrator, including:
 - Retired lives now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees

- B. + ***Asset data*** (cash & investments), furnished by plan administrator

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

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

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

- F. = Determination of:
 - Plan financial position***
 - and/or ***New Employer Contribution Rate***.

Section B

Valuation Results



CHANGE in Employer Contributions*
By Valuation Groups February 28, 2002

Group	Number of Active Members	Number of Valuation Groups with Indicated Change in Employer Contribution Rate						Totals
		Decreases			Unchanged 0.00%	Increases		
		Over 1.00%	0.51% to 1.00%	0.01% to 0.50%		0.01% to 0.50%	0.51% to 1.00%	
General:	1 - 9	12	23	39	34	29	41	178
	10 - 49	5	21	62	43	41	25	197
	50 & up	—	<u>4</u>	<u>34</u>	<u>9</u>	<u>36</u>	<u>23</u>	<u>106</u>
	Totals	17	48	135	86	106	89	481
Police:	1 - 9	10	13	21	32	13	25	114
	10 - 49	5	13	29	26	21	25	119
	50 & up	—	<u>4</u>	<u>1</u>	—	<u>6</u>	<u>7</u>	<u>18</u>
	Totals	15	30	51	58	40	57	251
Fire:	1 - 9	2	6	5	3	5	1	22
	10 - 49	2	6	6	9	2	6	31
	50 & up	<u>0</u>	<u>1</u>	<u>2</u>	<u>1</u>	—	<u>2</u>	<u>6</u>
	Totals	4	13	13	13	7	9	59
Totals		36	91	199	157	153	155	791

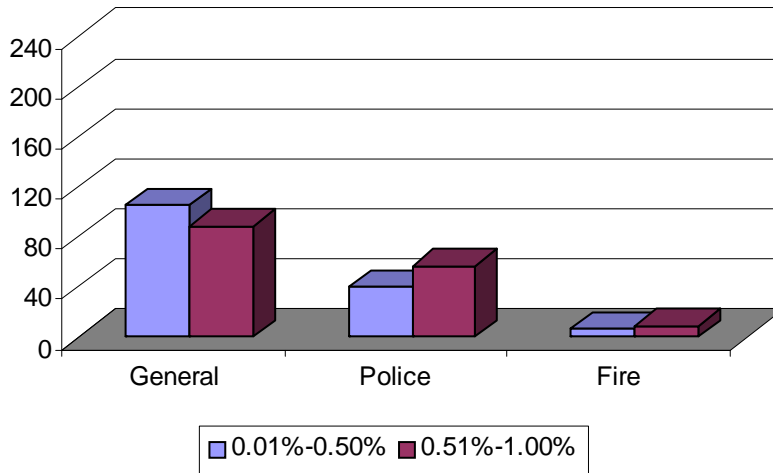
* Includes changes in employer contribution rates due to actual experience, changes in actuarial assumptions and changes in actuarial methods. It does not include changes in employer contribution rates due to benefit program changes.

In broad terms, the smaller the group, the greater the chance of a relatively large change in employer rate from one year to the next.

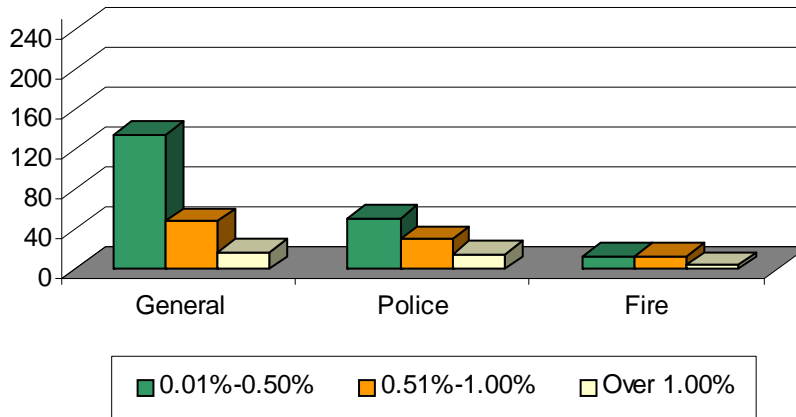
Missouri LAGERS

Change in Employer Contribution Rate* By Valuation Group

Increases



Decreases



* Includes changes in employer contribution rates due to actual experience, changes in actuarial assumptions and changes in actuarial methods. It does not include changes in employer contribution rates due to benefit program changes.

Schedule of Funding Progress

Each time a new employer joins the System, or an employer adopts a higher level of benefit, unfunded actuarial accrued liabilities are created. The law governing the System requires that these additional obligations be financed systematically over a period of future years.

In an inflationary economy the value of dollars is decreasing. This environment results in employee pays increasing in dollar amounts, retirement benefits increasing in dollar amounts, and then, unfunded actuarial accrued liabilities, all at a time when the actual substance of these items may be decreasing. Looking at just the dollar amounts of unfunded actuarial accrued liabilities can be misleading. Unfunded actuarial accrued liability dollars divided by active employee payroll provides an index which helps understanding. The smaller the ratio of unfunded liabilities to active member payroll, the stronger the System.

Schedule of Funding Progress

Valuation Date	(a) Actuarial Value of Assets	(b) Entry Age Actuarial Accrued Liability	(b-a) Unfunded Accrued Liability (UAL)	(a/b) Funded Ratio	(c) Annual Covered Payroll	[(b-a)/c] UAL as a % of Covered Payroll
02/28/93	\$ 881,054,064	\$ 952,080,014	\$ 71,025,950	92.5%	\$ 472,928,628	15.0%
02/28/94	959,742,611	1,059,355,076	99,612,465	90.6	505,208,639	19.7
02/28/95	1,058,988,617	1,184,478,577	125,489,960	89.4	534,173,422	23.5
02/29/96 #	1,193,364,071	1,321,045,041	127,680,970	90.3	581,120,176	22.0
02/28/97	1,356,624,078	1,520,483,332	163,859,254	89.2	627,184,823	26.1
02/28/98	1,592,940,530	1,719,428,702	126,488,172	92.6	667,085,761	19.0
02/28/99	1,818,112,722	1,940,840,958	122,728,236	93.7	716,154,828	17.1
02/29/00	2,129,073,917	2,153,498,866	24,424,949	98.9	757,753,142	3.2
02/28/01 #	2,395,912,598	2,302,816,630	(93,095,968)	104.0	808,959,292	-
02/28/02	2,623,610,917	2,613,087,737	(10,523,180)	100.4	875,061,292	-

Revised actuarial assumptions

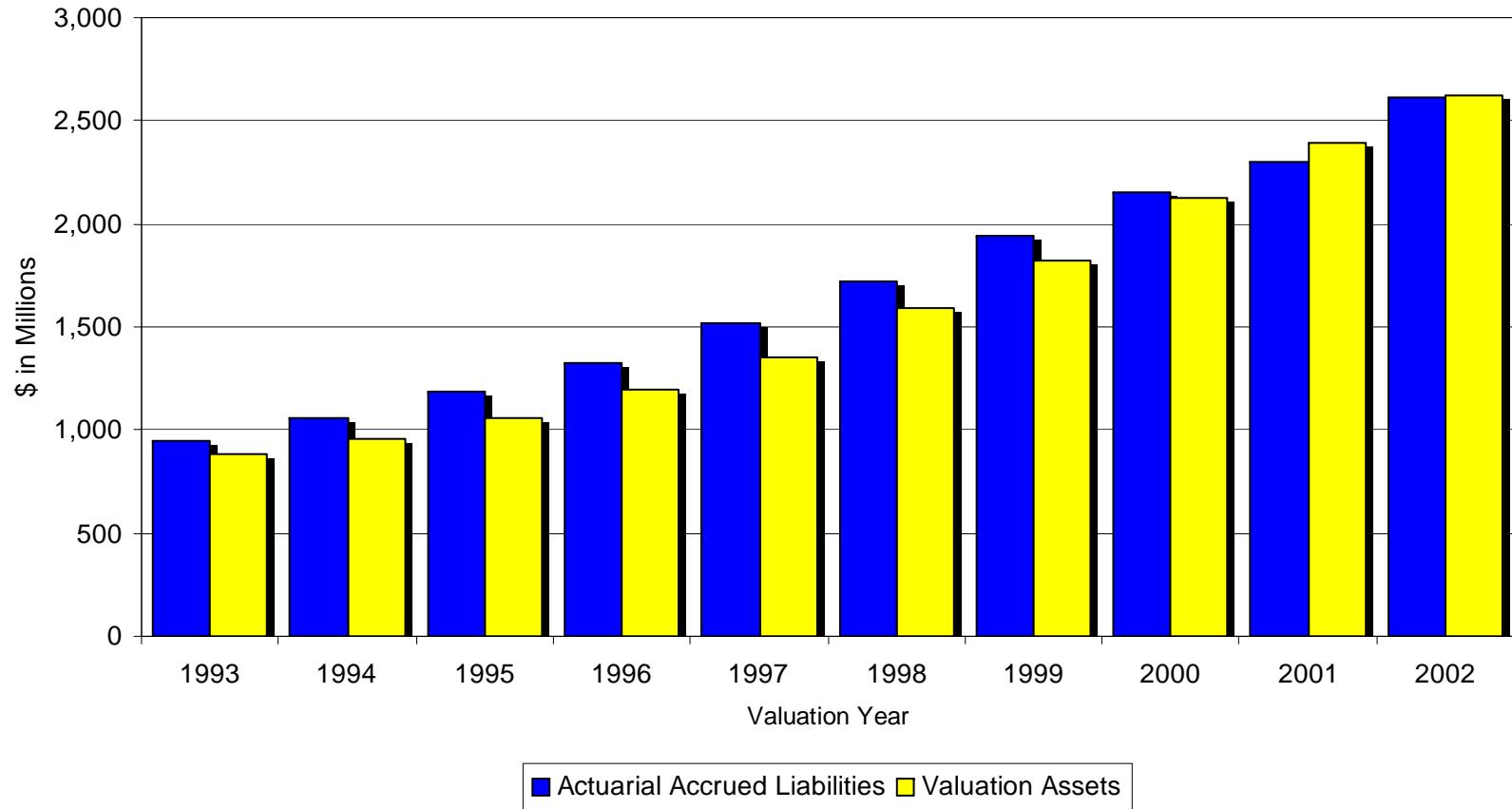
Each employer participating in the System is financially responsible for its own obligation. Accordingly, the aggregate numbers presented on this and the following pages are indicative only of the overall condition of the System and are not indicative of any one employer.

Factors that had a downward effect on the funded ratio this valuation year include:

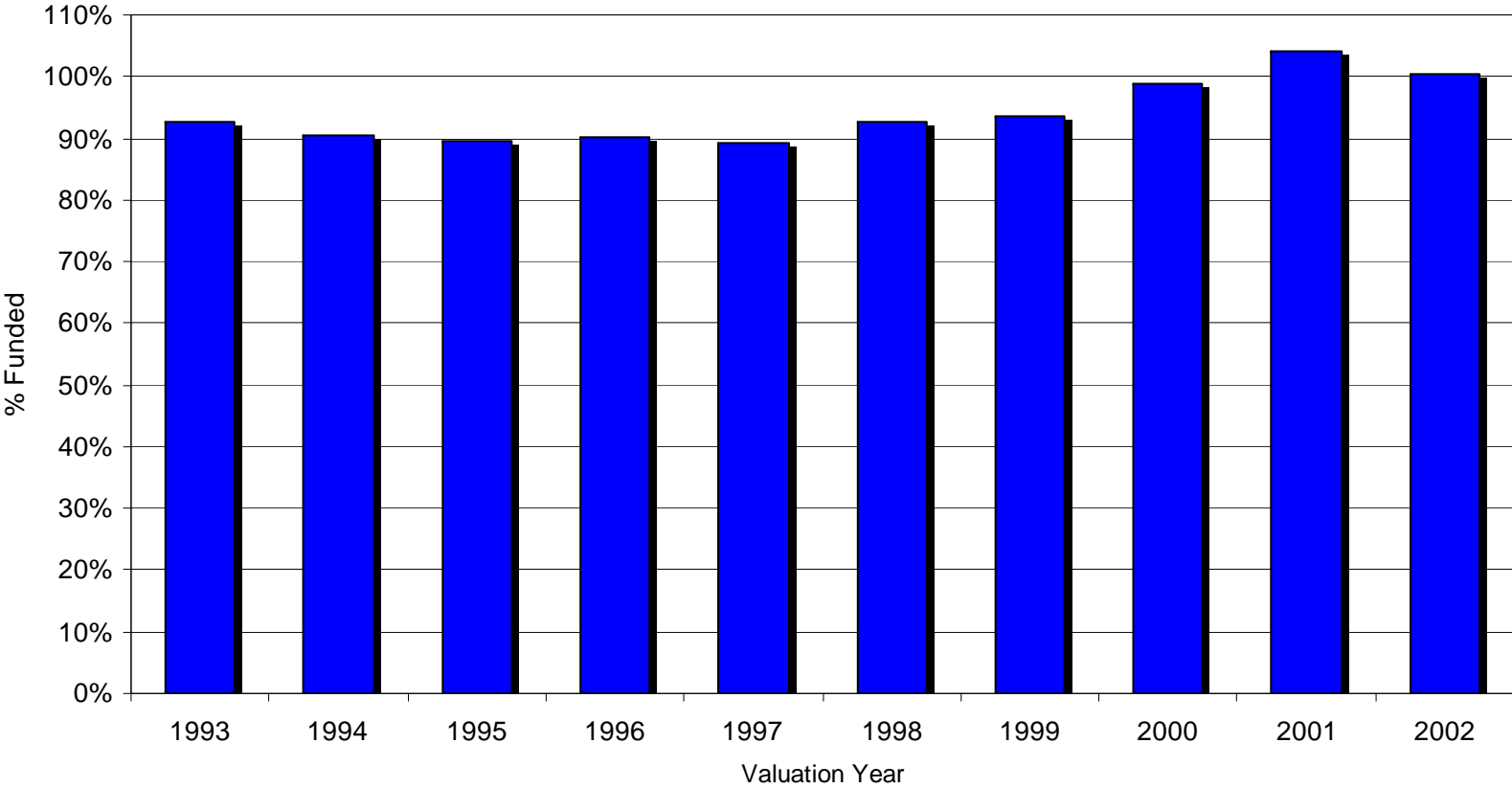
- Employers adopting new benefit programs. For example, before reflecting the benefit changes adopted by political subdivisions during the year, the 2-28-01 and 2-28-02 Funded Ratios would have been 107.0% (instead of 104.0%) and 105.3% (instead of 100.4%), respectively.
- New employers joining LAGERS (who at time of joining do not have assets on hand to cover actuarial accrued liabilities associated with past service).
- The planned reduction in funding levels (through reduced employer contributions) for employers that are over 100% funded.

Factors that had an upward effect on the funded ratio this valuation year include scheduled employer contributions and favorable investment experience.

Missouri LAGERS
Portion of Actuarial Accrued Liabilities
Covered by Valuation Assets



Missouri LAGERS
Valuation Assets as a Percent of
Actuarial Accrued Liabilities



Short Condition Test

The LAGERS funding objective is to meet long-term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System 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 the actuarial accrued liabilities for: (1) active member contributions on deposit; (2) future benefits to present retired lives; and (3) service already rendered by active members. In a system that has been following the discipline of level percent of payroll financing, the liabilities for active member contributions on deposit and for future benefits to present retired lives will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by active members 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.

The schedule below illustrates the most recent 10 year history of the System's actuarial accrued liabilities and is indicative of the LAGERS policy of following the discipline of level percent of payroll financing.

Short Condition Test Comparative Schedule

Valuation Date	Entry Age Accrued Liability For			Actuarial Value of Assets	Portion of Accrued Liability Covered by Assets		
	(1) Active Member Contributions	(2) Retirants and Beneficiaries*	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
	02/28/93	\$ 88,573,295	\$ 304,070,487		\$ 559,436,232	\$ 881,054,064	100%
02/28/94	61,796,221	346,699,587	650,859,268	959,742,611	100	100	85
02/28/95	56,428,223	406,765,030	721,285,324	1,058,988,617	100	100	83
02/29/96 #	49,176,361	471,335,903	800,532,777	1,193,364,071	100	100	84
02/28/97	47,811,978	550,904,104	921,767,250	1,356,624,078	100	100	82
02/28/98	54,045,521	650,291,340	1,015,091,841	1,592,940,530	100	100	88
02/28/99	55,329,128	756,345,932	1,129,165,898	1,818,112,722	100	100	89
02/29/00	57,118,191	867,281,953	1,229,098,722	2,129,073,917	100	100	98
02/28/01 #	59,548,771	916,644,950	1,326,622,909	2,395,912,598	100	100	107
02/28/02	62,603,672	1,010,156,078	1,540,327,987	2,623,610,917	100	100	101

Revised actuarial assumptions.

* Includes reserve for future benefit increases.

Employers Accumulation Fund

The Employers Accumulation Fund assets totaled \$1,543,329,341 as of February 28, 2002 based on the actuarial value of assets. The individual participating Employers Accumulation Fund accrued liabilities (entry age actuarial cost method) were computed to be \$1,532,806,161 as of that date.

Each time a new employer joins the System, or an employer adopts a higher level of benefit, unfunded accrued liabilities are created. The law governing the System requires that these additional EAF liabilities be financed systematically over a period of future years.

Each employer is financially responsible for its own EAF liabilities. Accordingly, the aggregate numbers presented for the Employers Accumulation Fund are indicative only of overall condition and not indicative of the status of any individual employer.

Employers Accumulation Fund Aggregate Accrued Liabilities and Actuarial Value of Assets Comparative Statement

Valuation Date	Actuarial Value of Assets	Aggregate Accrued Liabilities	Ratio of Assets to Liabilities*
2-28-93	\$ 478,502,447	\$ 549,528,397	87.1%
2-28-94	542,150,265	641,762,730	84.5
2-28-95	588,531,939	714,021,899	82.4
2-29-96#	668,023,673	795,704,643	84.0
2-28-97	756,144,924	920,004,178	82.2
2-28-98	882,637,910	1,009,126,082	87.5
2-28-99	1,000,606,196	1,123,334,432	89.1
2-29-00	1,198,046,097	1,222,471,046	98.0
2-28-01#	1,412,925,554	1,319,829,586	107.1
2-28-02	1,543,329,341	1,532,806,161	100.7

Revised actuarial assumptions.

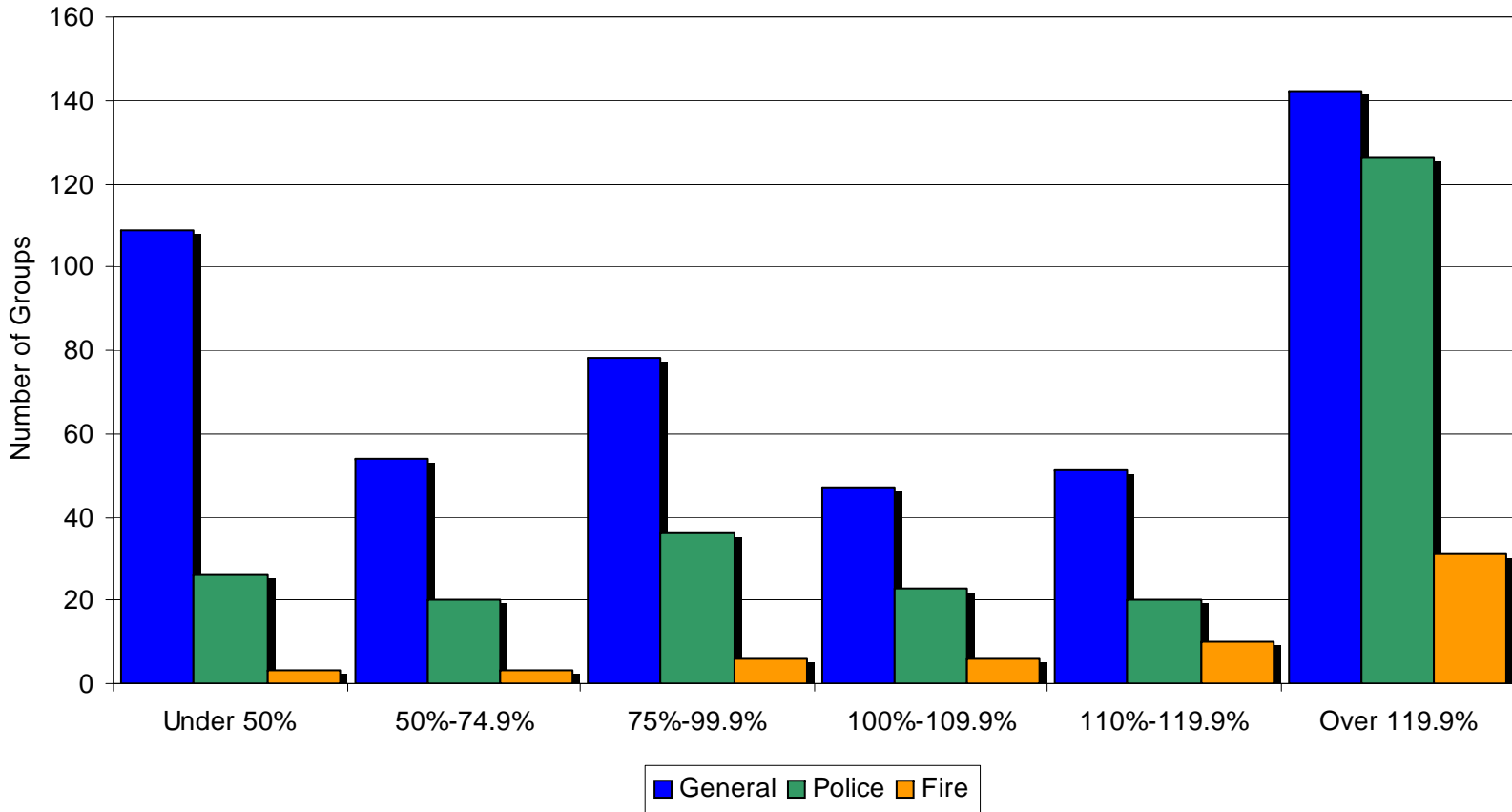
* The larger the ratio of assets to liabilities, the greater the reserve strength of the Employers Accumulation Fund.

Employers Accumulation Fund
PORTION of LIABILITIES covered by ASSETS
By Valuation Groups February 28, 2002

Group	Number of Active Members	Number of Valuation Groups with Assets as a Percent of Actuarial Accrued Liabilities						
		Under 50.0%	50.0% - 74.9%	75.0% - 99.9%	100.0% - 109.9%	110.0% - 119.9%	Over 119.9%	Totals*
General:	1 - 9	77	22	17	12	11	39	178
	10 - 49	30	24	34	17	22	70	197
	50 & up	<u>2</u>	<u>8</u>	<u>27</u>	<u>18</u>	<u>18</u>	<u>33</u>	<u>106</u>
	Totals	109	54	78	47	51	142	481
Police:	1 - 9	21	13	10	5	7	58	114
	10 - 49	5	7	17	15	10	65	119
	50 & up	—	—	<u>9</u>	<u>3</u>	<u>3</u>	<u>3</u>	<u>18</u>
	Totals	26	20	36	23	20	126	251
Fire:	1 - 9	1	3	3		3	12	22
	10 - 49	1		3	5	3	19	31
	50 & up	<u>1</u>	—	—	<u>1</u>	<u>4</u>	—	<u>6</u>
	Totals	3	3	6	6	10	31	59
Totals*		138	77	120	76	81	299	791

* Not included in this tabulation are 27 groups which presently have no active members.

**Missouri LAGERS
Employers Accumulation Fund
Portion of Liabilities Covered by Assets**



Members Deposit Fund

The Members Deposit Fund assets for active members totaled \$62,603,672 as of February 28, 2002.

The Members Deposit Fund actuarial accrued liabilities are a matching amount.

Members Deposit Fund Aggregate Actuarial Accrued Liabilities and Actuarial Value of Assets Comparative Statement

Valuation Date	Actuarial Value of Assets	Aggregate Accrued Liabilities	Ratio of Assets to Liabilities
2-28-93	\$ 93,518,479	\$ 93,518,479	100.0%
2-28-94	66,788,290	66,788,290	100.0
2-28-95	61,816,396	61,816,396	100.0
2-29-96	54,718,684	54,718,684	100.0
2-28-97	53,931,368	53,931,368	100.0
2-28-98	54,045,521	54,045,521	100.0
2-28-99	55,329,128	55,329,128	100.0
2-29-00	57,118,191	57,118,191	100.0
2-28-01	59,548,771	59,548,771	100.0
2-28-02	62,603,672	62,603,672	100.0

Benefit Reserve Fund

The Benefit Reserve Fund assets as of February 28, 2002 totaled \$1,010,156,078 based on the actuarial value of assets. The present value of future benefits was computed to be \$717,019,826 as of that date.

When a member retires, there is transferred to the Benefit Reserve Fund a single sum reserve which will cover all future pension benefits; this reserve is calculated based on assumptions about mortality and an assumed annual investment return rate of 4%.

Beginning in 1986, each year LAGERS actual investment return rate is credited to the Benefit Reserve Fund. The excess, if any, of the actual investment return rate over the assumed 4% provides the money from which the Board can grant benefit increases after retirement. Beginning in 1999 the investment return credit is limited if the funded ratio exceeds 140%. Beginning in 2002 the threshold was changed to 125%.

The most recent such benefit increase occurred October 1, 2001 and consisted of an overall increase of 4% or less.

Benefit Reserve Fund Actuarial Accrued Liabilities and Accrued Assets Comparative Statement

Annual Valuation Date	Pensions Being Paid	Benefit Increase % Last Oct. 1	Investment Return % Last June 30	Present Value of Future Benefits	Reserve for Future Experience	Accrued Liabilities	Actuarial Value of Assets	Ratio of Actuarial Value of Assets to PVFB
02/28/93	\$22,150,640	4.0%	8.1%	\$247,016,244	\$57,054,243	\$304,070,487	\$304,070,487	123.1%
02/28/94	24,720,941	4.0	11.7	275,335,176	71,364,411	346,699,587	346,699,587	125.9
02/28/95	28,599,681	4.0 @	8.5	320,595,384	86,169,646	406,765,030	406,765,030	126.9
02/29/96	32,341,869	4.0	7.0	361,100,952	110,234,951	471,335,903	471,335,903	130.5
02/28/97	36,759,417	4.0	13.5	410,670,528	140,233,576	550,904,104	550,904,104	134.1
02/28/98	41,599,468	4.0	11.4	467,563,884	182,727,456	650,291,340	650,291,340	139.1
02/28/99	46,365,846	4.0	17.0	520,260,156	236,085,776	756,345,932	756,345,932	145.4
02/29/00	51,921,290	4.0	5.6	583,429,164	283,852,789	867,281,953	867,281,953	148.7
02/28/01 #	57,989,017	4.0 @	14.4	636,824,117	279,820,833	916,644,950	916,644,950	143.9
02/28/02	65,001,494	4.0 @	3.1	717,019,826	293,136,252	1,010,156,078	1,010,156,078	140.9

Revised actuarial assumptions.

@ The overall benefit increase % was 4.0% even though individuals received varying benefit increase %'s.

Casualty Reserve Fund

Beginning with the 1989 valuation, at the time a disability benefit becomes payable there is transferred from the Casualty Reserve Fund to the Benefit Reserve Fund the difference between (i) the full employer reserve covering the disability benefit and (ii) the accrued service liability of the Employer Accumulation Fund for the member who became disabled.

Employer contributions to cover the transfers described above are determined on a pooled-group basis (not separately for each financing group). The contribution rates, varying by size of benefit formula, were last changed in 1996.


If there is a positive balance in the Casualty Reserve Fund at any time, it indicates that cumulative past contributions have fully funded the cumulative past obligations --- similarly, a negative balance would indicate that cumulative past contributions have fallen short of the target.

For actuarial valuation purposes, actuarial accrued liabilities equal the actuarial value of assets.


Casualty Reserve Fund Actuarial Value of Assets at Valuation Dates Comparative Statement

Valuation Date	Employer L-1 Contributions: Year Ended	Actuarial Value of Assets	Accrued Liabilities	Assets Expressed as Percents of Member Payroll	
				Total	Change
02/28/93	0.2%	\$ 4,962,651	\$ 4,962,651	1.0%	-0.2%
02/28/94	0.2	4,104,469	4,104,469	0.8	-0.2
02/28/95	0.2	1,875,252	1,875,252	0.4	-0.4
02/29/96	0.5	(714,189)	(714,189)	-0.1	-0.5
02/28/97	0.5	(4,356,318)	(4,356,318)	-0.7	-0.6
02/28/98 @	0.5	5,965,759	5,965,759	0.9	1.6
02/28/99	0.5	5,831,466	5,831,466	0.8	-0.1
02/29/00	0.5	6,627,676	6,627,676	0.9	0.1
02/28/01	0.5	6,793,323	6,793,323	0.8	-0.1
02/28/02	0.5	7,521,826	7,521,826	0.9	0.1

@ Reflects special \$10 million transfer to the Casualty Reserve Fund.



Section C
Projection Results



Introduction: The Nature of Actuarial Projections

Regular actuarial valuations measure the retirement system's present financial position and contribution adequacy by calculating and financing the liabilities created by the benefit program. This process involves discounting to present values the future benefit payments on behalf of present active and retired members and their survivors. However, valuations do not produce information regarding future changes in the makeup of the covered group or the amounts of benefits to be paid or investment return to be received. This is done by actuarial projections.

Whereas valuations provide a snapshot of the retirement system as of a given date, projections provide a moving picture. Projected active and retired groups are developed from year to year by the application of assumptions regarding pre-retirement withdrawal from service, retirements, deaths, disabilities, and the addition of new members. Projected information regarding the retired life group leads to assumed future benefit payout. Combining future benefit payments with expected contributions and investment earnings produces the net cash flow of the system each year, and thus end of year asset levels.

Projection results are useful in demonstrating changing relationships among key elements affecting system financial activity. For example: how benefits and system assets will grow in future decades. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. For instance, cash flow projected to occur 10 years in the future will not be exact (except by coincidence). However, projections can increase the understanding of the emerging and changing relationships between future benefit payout and future investment income.

This section presents the results of a 50 year open group actuarial projection of LAGERS' experience based on regular actuarial assumptions and February 28, 2002 census data. Each department (general, police, fire, etc.) of each employer is separately projected, based on the benefit provisions and actuarial assumptions applicable to that department. The results have been summarized over the 791 departments and presented in this report.

Summary Observations

The actuarial projections of LAGERS are based on regular valuation assumptions and lead to some general observations:

- 1) The ratio of active members to retirees will decline gradually over the next 50 years from the present level of 2.8 to 1 to a low point of 0.7 to 1 (see page C-12). The decline in the active/retiree ratio may be postponed if the active member population grows, either due to new employers joining LAGERS or an increase in the existing employers' work forces. The ultimate active/retiree ratio may be greater than 0.7 to 1 if the new lump sum cash out feature for short service vested members becomes much more popular.
- 2) The growth of the trust fund is expected to continue indefinitely, because of the projected 4% inflation. In real terms, assets will rise by about 68% over the present level, and remain approximately constant thereafter.
- 3) Investment return is now and will continue to be the largest source of revenue for the retirement system (see page C-14 or C-18).
- 4) In the next few years LAGERS' benefit payout will become larger than the employer and member contributions (see page C-16). The system will begin to rely in part on investment return to pay benefits. This is the normal and expected situation. At this point the system begins to reap the rewards of actuarial pre- or advance funding. In fact, in about 18 years investment income will pay more of the benefits than paid by employer and member contributions. Investment liquidity will become an important issue beginning in the next few years. Liquidity needs will increase gradually until eventually leveling off at about 3.5% of assets. The 3.5% annual real investment return (return in excess of inflation) will be used to pay benefits, while the 4% inflation portion of investment return will be needed to maintain the value of the portfolio.
- 5) Benefit payout relative to active member payroll will increase with time, and will level out at over 25% of payroll. Meanwhile, employer and member contributions will level out at about 10.1% of payroll (see page C-18).

- 6) The current funded ratio, 100.1%, fluctuates around 100% over the projection period. Since amortization periods never fall below 15 years, the negative unfunded accrued liability slowly gets smaller and smaller in real dollars, but never quite drops to zero. This smooth progression, of course, is based on a constant 7.5% projected investment return.

- 7) An interesting finding relates to the program of annual post-retirement benefit increases. The valuation assumption for investment return is 7.5% annually, and for post-retirement increases 2.88%, compounded annually. The projection assumes that a 7.5% annual rate of investment return is earned on the entire portfolio (including the retiree portion of the assets). Based on the projected 7.5% annual return, an annual 2.88% compound post-retirement benefit increase is supportable indefinitely. Annual increases above 2.88%, up to the maximum 4% average increase specified in statute, cannot be financed indefinitely by the Reserve for Future Experience in the Benefit Reserve Fund (\$293 million as of February 28, 2002). However, it turns out that unless investment return exceeds 7.5% on average, the Reserve for Future Experience will be exhausted in about 30-40 years (if the full 4% COLA is granted). Therefore, investment income in excess of 7.5% will be needed to maintain the 4% annual benefit increases.

Characteristics of Future Members

The assumed characteristics of future members have a powerful effect on the results of 50-year projections, since future members are the major portion of the active member group for most of the 50 years (see page C-5).

The characteristics assumed for these projections are those of current members at the time they were hired.

Characteristics of Future Members At Time of Employment	
Age	Percent
Below 25	22.2%
25-29	21.1%
30-34	15.9%
35-39	13.6%
40-44	11.2%
45-49	7.7%
50-54	4.8%
55 & Up	3.5%
Total	100.0%
Males	64.6%
Females	35.4%
Total	100.0%
Average Pay (2002 \$)	\$26,551

LAGERS Active Member Population 2003-2052

February 28	Active Members			February 28	Active Members		
	Present	Future	Total		Present	Future	Total
2003	24,479	2,849	27,328	2028	1,692	25,636	27,328
2004	22,291	5,037	27,328	2029	1,434	25,894	27,328
2005	20,433	6,895	27,328	2030	1,205	26,123	27,328
2006	18,817	8,511	27,328	2031	1,005	26,323	27,328
2007	17,383	9,945	27,328	2032	832	26,496	27,328
2008	16,052	11,276	27,328	2033	680	26,648	27,328
2009	14,799	12,529	27,328	2034	551	26,777	27,328
2010	13,622	13,706	27,328	2035	440	26,888	27,328
2011	12,511	14,817	27,328	2036	347	26,981	27,328
2012	11,464	15,864	27,328	2037	271	27,057	27,328
2013	10,487	16,841	27,328	2038	209	27,119	27,328
2014	9,570	17,758	27,328	2039	158	27,170	27,328
2015	8,713	18,615	27,328	2040	116	27,212	27,328
2016	7,910	19,418	27,328	2041	84	27,244	27,328
2017	7,150	20,178	27,328	2042	59	27,269	27,328
2018	6,435	20,893	27,328	2043	40	27,288	27,328
2019	5,766	21,562	27,328	2044	26	27,302	27,328
2020	5,144	22,184	27,328	2045	17	27,311	27,328
2021	4,564	22,764	27,328	2046	11	27,317	27,328
2022	4,029	23,299	27,328	2047	6	27,322	27,328
2023	3,534	23,794	27,328	2048	4	27,324	27,328
2024	3,084	24,244	27,328	2049	2	27,326	27,328
2025	2,679	24,649	27,328	2050	1	27,327	27,328
2026	2,311	25,017	27,328	2051	0	27,328	27,328
2027	1,981	25,347	27,328	2052	0	27,328	27,328

Within 8 years it is expected that over half of the active member population will consist of people entering the system after the valuation date (February 28, 2002).

LAGERS Present Active Members 2003-2052

February 28	Present Active Members	Group Averages		February 28	Present Active Members	Group Averages	
		Age	Service			Age	Service
2003	24,479	44.0	10.3	2028	1,692	57.6	30.7
2004	22,291	44.9	11.3	2029	1,434	58.1	31.5
2005	20,433	45.7	12.3	2030	1,205	58.5	32.3
2006	18,817	46.5	13.3	2031	1,005	58.9	33.1
2007	17,383	47.2	14.2	2032	832	59.4	33.9
2008	16,052	47.9	15.1	2033	680	59.8	34.7
2009	14,799	48.6	16.0	2034	551	60.3	35.5
2010	13,622	49.3	16.8	2035	440	60.7	36.3
2011	12,511	49.9	17.7	2036	347	61.1	37.1
2012	11,464	50.5	18.5	2037	271	61.6	37.9
2013	10,487	51.0	19.3	2038	209	62.0	38.8
2014	9,570	51.6	20.1	2039	158	62.5	39.6
2015	8,713	52.1	20.9	2040	116	62.9	40.5
2016	7,910	52.7	21.7	2041	84	63.4	41.3
2017	7,150	53.1	22.4	2042	59	64.0	42.2
2018	6,435	53.6	23.2	2043	40	64.6	43.1
2019	5,766	54.1	24.0	2044	26	65.3	44.0
2020	5,144	54.5	24.7	2045	17	66.0	44.9
2021	4,564	54.9	25.5	2046	11	66.6	45.8
2022	4,029	55.3	26.2	2047	6	67.2	46.7
2023	3,534	55.7	27.0	2048	4	67.8	47.6
2024	3,084	56.1	27.7	2049	2	68.4	48.5
2025	2,679	56.4	28.5	2050	1	68.9	49.4
2026	2,311	56.8	29.2	2051	0	69.4	50.2
2027	1,981	57.2	30.0	2052	0	69.6	51.0

Approximately 92% of the current active population will no longer be active after 25 years.

**LAGERS Future Active Members
2003-2052**

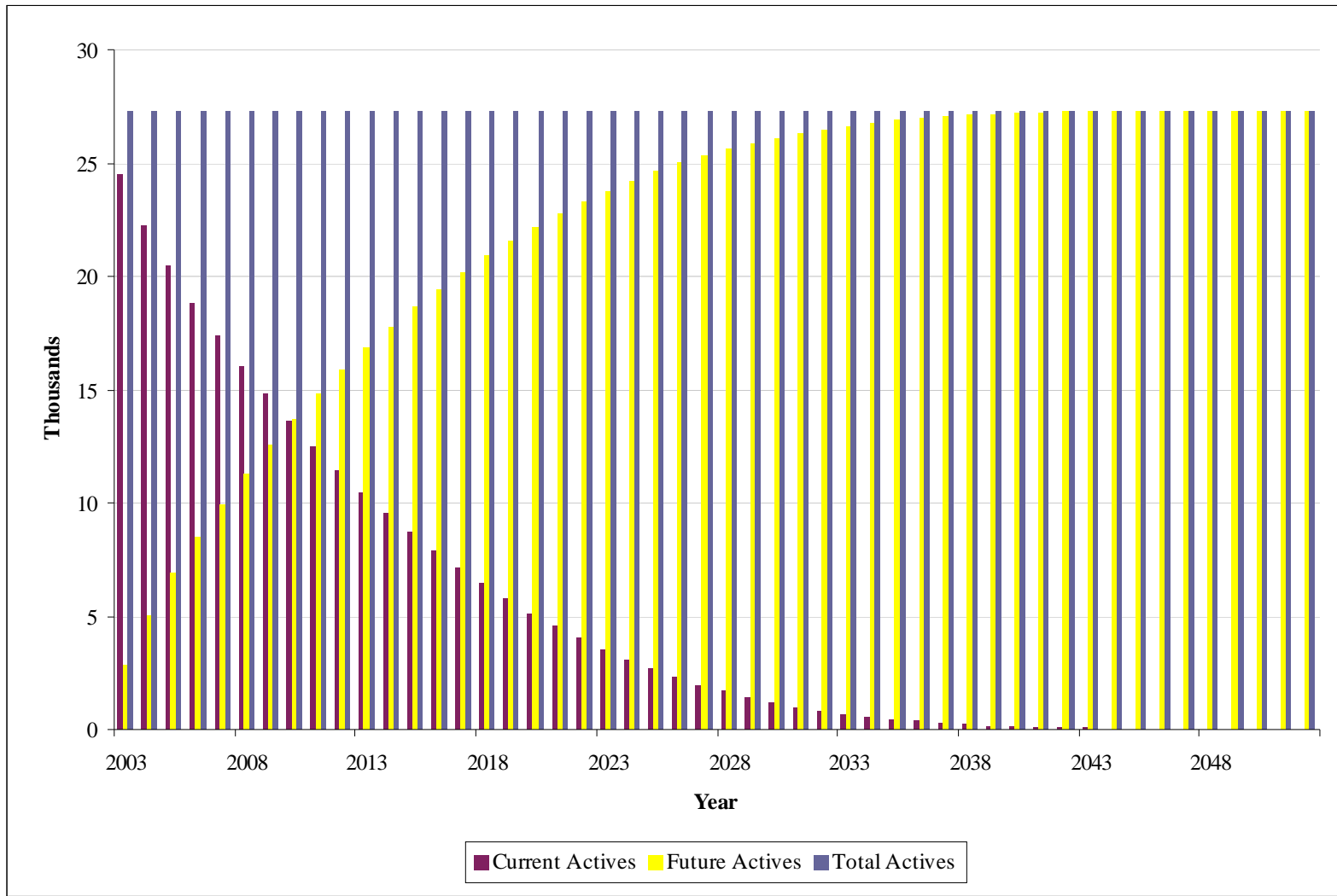
February 28	Future Active Members	Group Averages		February 28	Future Active Members	Group Averages	
		Age	Service			Age	Service
2003	2,849	33.5	0.0	2028	25,636	40.8	8.1
2004	5,037	33.9	0.6	2029	25,894	40.9	8.3
2005	6,895	34.2	0.9	2030	26,123	41.1	8.5
2006	8,511	34.6	1.3	2031	26,323	41.2	8.7
2007	9,945	35.0	1.7	2032	26,496	41.3	8.9
2008	11,276	35.3	2.1	2033	26,648	41.4	9.0
2009	12,529	35.7	2.4	2034	26,777	41.5	9.2
2010	13,706	36.0	2.8	2035	26,888	41.6	9.3
2011	14,817	36.4	3.1	2036	26,981	41.7	9.4
2012	15,864	36.7	3.5	2037	27,057	41.8	9.5
2013	16,841	37.1	3.8	2038	27,119	41.8	9.5
2014	17,758	37.4	4.2	2039	27,170	41.9	9.6
2015	18,615	37.7	4.5	2040	27,212	41.9	9.7
2016	19,418	38.0	4.8	2041	27,244	41.9	9.7
2017	20,178	38.3	5.1	2042	27,269	41.9	9.7
2018	20,893	38.5	5.5	2043	27,288	42.0	9.7
2019	21,562	38.8	5.8	2044	27,302	42.0	9.8
2020	22,184	39.1	6.1	2045	27,311	42.0	9.8
2021	22,764	39.3	6.3	2046	27,317	42.0	9.8
2022	23,299	39.6	6.6	2047	27,322	42.0	9.8
2023	23,794	39.8	6.9	2048	27,324	42.0	9.8
2024	24,244	40.0	7.2	2049	27,326	42.0	9.8
2025	24,649	40.2	7.4	2050	27,327	42.0	9.8
2026	25,017	40.4	7.7	2051	27,328	42.0	9.8
2027	25,347	40.6	7.9	2052	27,328	42.0	9.8

LAGERS Total Active Members Group Averages - 2003-2052

February 28	Total Active Members	Group Averages				February 28	Total Active Members	Group Averages			
		Age	Service	Pay				Age	Service	Pay	
				Inflated	2003 \$					Inflated	2003 \$
2003	27,328	42.9	9.2	\$33,391	\$33,391	2028	27,328	41.8	9.5	\$89,851	\$33,705
2004	27,328	42.9	9.3	34,805	33,466	2029	27,328	41.8	9.6	93,542	33,740
2005	27,328	42.8	9.5	36,249	33,514	2030	27,328	41.9	9.6	97,375	33,771
2006	27,328	42.8	9.6	37,747	33,557	2031	27,328	41.9	9.6	101,357	33,800
2007	27,328	42.8	9.7	39,286	33,582	2032	27,328	41.9	9.6	105,493	33,826
2008	27,328	42.7	9.7	40,872	33,594	2033	27,328	41.9	9.7	109,780	33,847
2009	27,328	42.7	9.8	42,501	33,589	2034	27,328	41.9	9.7	114,239	33,867
2010	27,328	42.6	9.8	44,194	33,584	2035	27,328	41.9	9.7	118,869	33,885
2011	27,328	42.6	9.8	45,946	33,572	2036	27,328	41.9	9.7	123,681	33,900
2012	27,328	42.5	9.8	47,761	33,556	2037	27,328	42.0	9.7	128,683	33,915
2013	27,328	42.4	9.8	49,648	33,540	2038	27,328	42.0	9.8	133,880	33,927
2014	27,328	42.4	9.7	51,608	33,524	2039	27,328	42.0	9.8	139,278	33,938
2015	27,328	42.3	9.7	53,652	33,511	2040	27,328	42.0	9.8	144,882	33,945
2016	27,328	42.2	9.7	55,779	33,499	2041	27,328	42.0	9.8	150,704	33,951
2017	27,328	42.2	9.7	57,997	33,492	2042	27,328	42.0	9.8	156,751	33,955
2018	27,328	42.1	9.6	60,315	33,491	2043	27,328	42.0	9.8	163,033	33,958
2019	27,328	42.0	9.6	62,732	33,493	2044	27,328	42.0	9.8	169,559	33,959
2020	27,328	42.0	9.6	65,258	33,502	2045	27,328	42.0	9.8	176,340	33,959
2021	27,328	41.9	9.5	67,896	33,515	2046	27,328	42.0	9.8	183,388	33,958
2022	27,328	41.9	9.5	70,649	33,533	2047	27,328	42.0	9.8	190,712	33,956
2023	27,328	41.9	9.5	73,519	33,553	2048	27,328	42.0	9.8	198,326	33,953
2024	27,328	41.8	9.5	76,518	33,579	2049	27,328	42.0	9.8	206,243	33,950
2025	27,328	41.8	9.5	79,647	33,607	2050	27,328	42.0	9.8	214,475	33,948
2026	27,328	41.8	9.5	82,909	33,638	2051	27,328	42.0	9.8	223,035	33,945
2027	27,328	41.8	9.5	86,304	33,669	2052	27,328	42.0	9.8	231,938	33,942

Average pay in year 2003 dollars provides a constant measure of purchasing power. In 2052, a participant earning a pay of \$231,938 will be in the same relative financial position as the average participant today.

Active Population – Present and Future

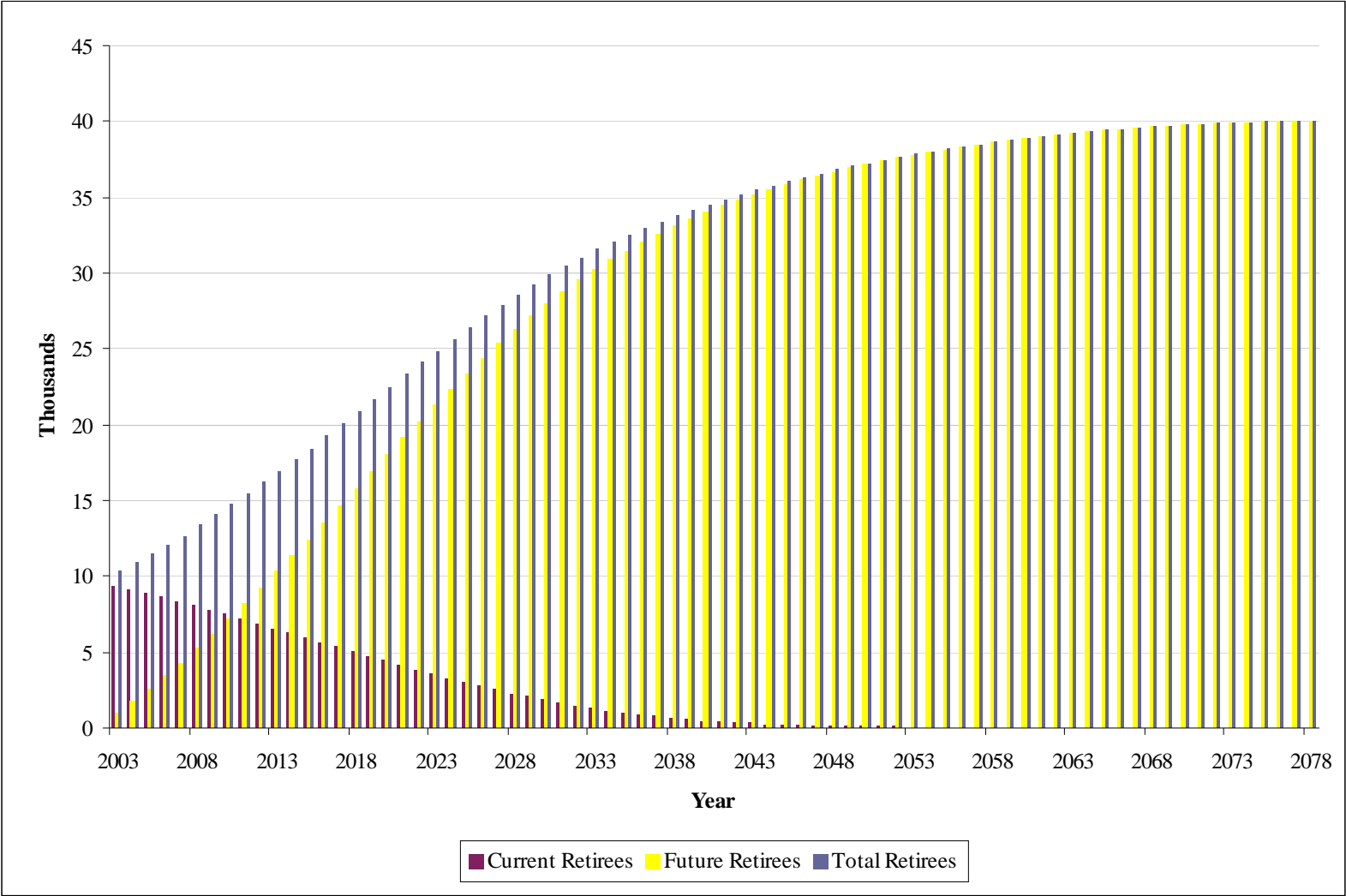


LAGERS Retiree Population 2003-2052

February 28	Retirees			February 28	Retirees		
	Present	Future	Total		Present	Future	Total
2003	9,385	1,039	10,424	2028	2,312	26,239	28,551
2004	9,145	1,834	10,979	2029	2,091	27,146	29,237
2005	8,897	2,635	11,532	2030	1,884	27,976	29,860
2006	8,636	3,467	12,103	2031	1,687	28,800	30,487
2007	8,367	4,318	12,685	2032	1,504	29,558	31,062
2008	8,089	5,278	13,367	2033	1,335	30,281	31,616
2009	7,798	6,247	14,045	2034	1,178	30,899	32,077
2010	7,504	7,266	14,770	2035	1,039	31,492	32,531
2011	7,205	8,264	15,469	2036	908	32,047	32,955
2012	6,902	9,297	16,199	2037	789	32,597	33,386
2013	6,595	10,349	16,944	2038	684	33,105	33,789
2014	6,292	11,396	17,688	2039	591	33,579	34,170
2015	5,984	12,450	18,434	2040	506	34,038	34,544
2016	5,678	13,553	19,231	2041	433	34,457	34,890
2017	5,372	14,666	20,038	2042	368	34,850	35,218
2018	5,065	15,786	20,851	2043	313	35,202	35,515
2019	4,762	16,901	21,663	2044	263	35,535	35,798
2020	4,461	18,028	22,489	2045	220	35,854	36,074
2021	4,164	19,140	23,304	2046	185	36,154	36,339
2022	3,874	20,207	24,081	2047	155	36,437	36,592
2023	3,587	21,261	24,848	2048	129	36,703	36,832
2024	3,311	22,312	25,623	2049	105	36,952	37,057
2025	3,047	23,334	26,381	2050	86	37,186	37,272
2026	2,792	24,367	27,159	2051	73	37,408	37,481
2027	2,547	25,320	27,867	2052	59	37,616	37,675

The present retiree group changes much more gradually than the active member group. Just over half of the present retiree group is expected to be still drawing benefits after 15 years.

Retiree Population – Present and Future

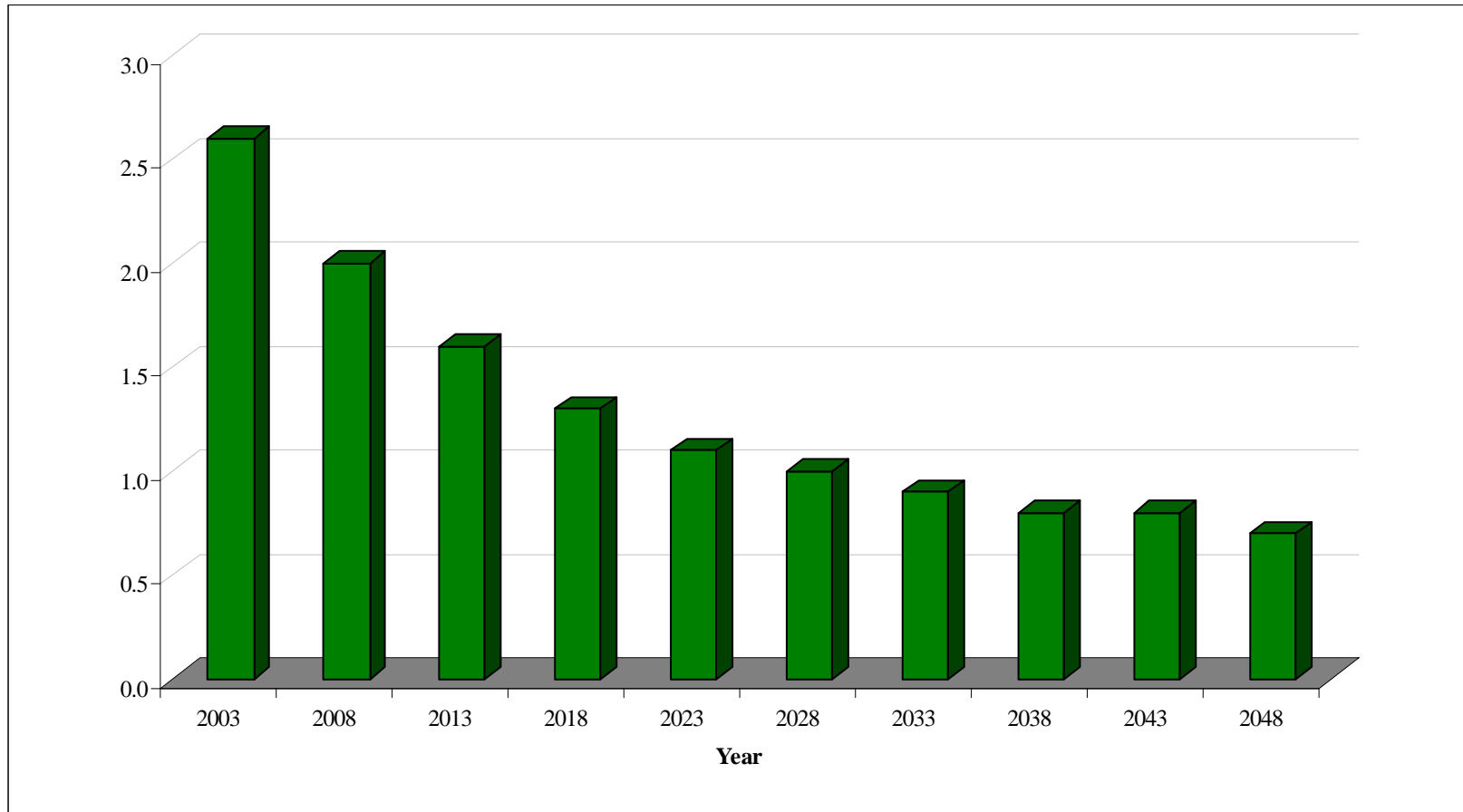


Ratio of Active Members to Retirees - 2003-2052

February 28	Active Members	Retirees	A/R	February 28	Active Members	Retirees	A/R
2003	27,328	10,424	2.6	2028	27,328	28,551	1.0
2004	27,328	10,979	2.5	2029	27,328	29,237	0.9
2005	27,328	11,532	2.4	2030	27,328	29,860	0.9
2006	27,328	12,103	2.3	2031	27,328	30,487	0.9
2007	27,328	12,685	2.2	2032	27,328	31,062	0.9
2008	27,328	13,367	2.0	2033	27,328	31,616	0.9
2009	27,328	14,045	1.9	2034	27,328	32,077	0.9
2010	27,328	14,770	1.9	2035	27,328	32,531	0.8
2011	27,328	15,469	1.8	2036	27,328	32,955	0.8
2012	27,328	16,199	1.7	2037	27,328	33,386	0.8
2013	27,328	16,944	1.6	2038	27,328	33,789	0.8
2014	27,328	17,688	1.5	2039	27,328	34,170	0.8
2015	27,328	18,434	1.5	2040	27,328	34,544	0.8
2016	27,328	19,231	1.4	2041	27,328	34,890	0.8
2017	27,328	20,038	1.4	2042	27,328	35,218	0.8
2018	27,328	20,851	1.3	2043	27,328	35,515	0.8
2019	27,328	21,663	1.3	2044	27,328	35,798	0.8
2020	27,328	22,489	1.2	2045	27,328	36,074	0.8
2021	27,328	23,304	1.2	2046	27,328	36,339	0.8
2022	27,328	24,081	1.1	2047	27,328	36,592	0.7
2023	27,328	24,848	1.1	2048	27,328	36,832	0.7
2024	27,328	25,623	1.1	2049	27,328	37,057	0.7
2025	27,328	26,381	1.0	2050	27,328	37,272	0.7
2026	27,328	27,159	1.0	2051	27,328	37,481	0.7
2027	27,328	27,867	1.0	2052	27,328	37,675	0.7

The ratio of active members to retirees (A/R) is expected to decline steadily until it reaches a level of about 0.7. This is a reasonable result, given the mixture of retirement conditions in LAGERS, the 5 year vesting provision, and the large number of non-contributory members.

Ratio of Active Members to Retirees

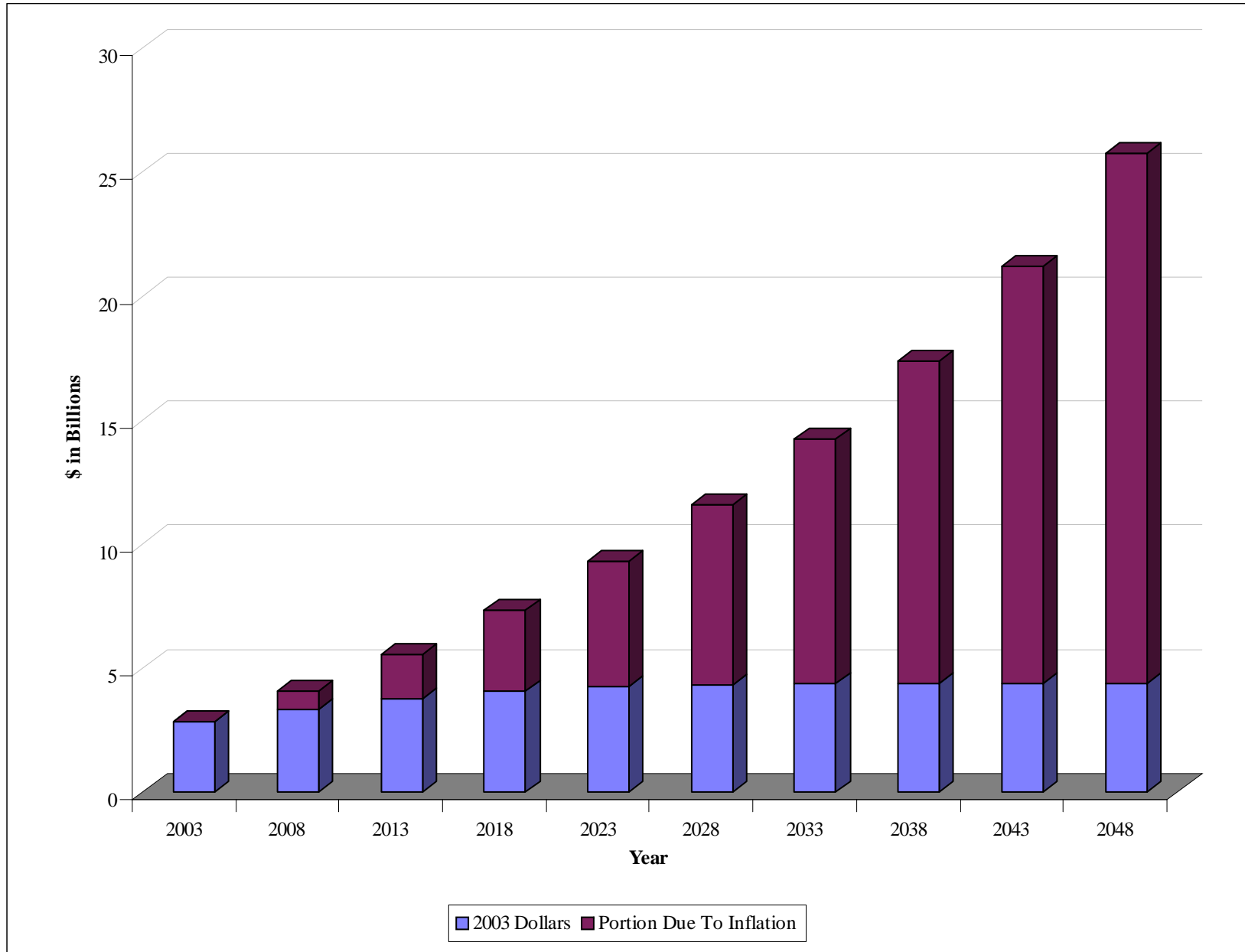


50 Year Fund Projection

Based on Valuation Assumptions – (\$ in Thousands)

Year Ended February 28	Assets BOY	Contributions				Benefits	Investment Income	Assets EOY	
		Current Cost	Disability Cost	UAAL Payment	Total			Inflated	2003 \$
2003	\$2,623,611	\$86,026	\$5,377	(\$6,959)	\$84,444	\$71,442	\$197,258	\$2,833,871	\$2,833,871
2004	2,833,871	89,688	5,606	(5,348)	89,946	80,813	212,882	3,055,886	2,938,352
2005	3,055,886	93,448	5,840	(3,874)	95,414	90,414	229,379	3,290,265	3,042,035
2006	3,290,265	97,317	6,082	(2,509)	100,890	100,978	246,768	3,536,945	3,144,331
2007	3,536,945	101,312	6,332	(1,324)	106,320	112,645	265,033	3,795,653	3,244,540
2008	3,795,653	105,421	6,589	(111)	111,899	124,714	284,194	4,067,032	3,342,804
2009	4,067,032	109,649	6,853	(153)	116,349	138,302	304,204	4,349,283	3,437,302
2010	4,349,283	114,019	7,126	(1,405)	119,740	153,279	324,939	4,640,683	3,526,538
2011	4,640,683	118,550	7,409	(2,049)	123,910	169,412	346,345	4,941,526	3,610,725
2012	4,941,526	123,241	7,703	(1,139)	129,805	186,871	368,474	5,252,934	3,690,642
2013	5,252,934	128,110	8,007	(389)	135,728	205,305	391,360	5,574,717	3,766,079
2014	5,574,717	133,170	8,323	369	141,862	224,994	414,986	5,906,571	3,836,796
2015	5,906,571	138,435	8,652	1,168	148,255	245,825	439,334	6,248,335	3,902,692
2016	6,248,335	143,921	8,995	1,652	154,568	267,592	464,387	6,599,698	3,963,608
2017	6,599,698	149,636	9,352	2,029	161,017	290,518	490,122	6,960,319	4,019,411
2018	6,960,319	155,601	9,725	2,013	167,339	314,350	516,512	7,329,820	4,069,989
2019	7,329,820	161,828	10,114	1,999	173,941	338,950	543,549	7,708,360	4,115,556
2020	7,708,360	168,329	10,521	1,982	180,832	364,436	571,241	8,095,997	4,156,268
2021	8,095,997	175,120	10,945	1,962	188,027	390,766	599,598	8,492,856	4,192,313
2022	8,492,856	182,210	11,388	1,934	195,532	417,675	628,634	8,899,347	4,224,008
2023	8,899,347	189,604	11,850	1,906	203,360	444,926	658,393	9,316,174	4,251,780
2024	9,316,174	197,323	12,333	1,878	211,534	472,710	688,919	9,743,917	4,275,958
2025	9,743,917	205,382	12,836	1,851	220,069	500,982	720,261	10,183,265	4,296,883
2026	10,183,265	213,787	13,362	1,824	228,973	529,764	752,465	10,634,939	4,314,875
2027	10,634,939	222,543	13,909	1,798	238,250	559,021	785,591	11,099,759	4,330,255
2028	11,099,759	231,671	14,479	1,772	247,922	588,653	819,706	11,578,734	4,343,378
2029	11,578,734	241,191	15,074	1,747	258,012	618,846	854,873	12,072,773	4,354,519
2030	12,072,773	251,087	15,693	1,721	268,501	649,632	891,166	12,582,808	4,363,926
2031	12,582,808	261,365	16,335	1,697	279,397	680,928	928,653	13,109,930	4,371,866
2032	13,109,930	272,042	17,003	1,672	290,717	713,011	967,408	13,655,044	4,378,509
2033	13,655,044	283,120	17,695	1,648	302,463	745,812	1,007,503	14,219,198	4,384,044
2034	14,219,198	294,623	18,414	1,624	314,661	779,231	1,049,018	14,803,646	4,388,693
2035	14,803,646	306,576	19,161	1,601	327,338	813,450	1,092,044	15,409,578	4,392,623
2036	15,409,578	318,993	19,937	1,578	340,508	848,554	1,136,667	16,038,199	4,395,977
2037	16,038,199	331,901	20,744	1,555	354,200	884,682	1,182,971	16,690,688	4,398,866
2038	16,690,688	345,315	21,582	1,532	368,429	922,113	1,231,038	17,368,042	4,401,331
2039	17,368,042	359,249	22,453	1,510	383,212	960,761	1,280,945	18,071,438	4,403,444
2040	18,071,438	373,719	23,357	1,488	398,564	1,000,874	1,332,772	18,801,900	4,405,226
2041	18,801,900	388,746	24,297	1,467	414,510	1,042,590	1,386,589	19,560,409	4,406,675
2042	19,560,409	404,355	25,272	1,446	431,073	1,085,826	1,442,477	20,348,133	4,407,825
2043	20,348,133	420,570	26,286	1,425	448,281	1,130,578	1,500,523	21,166,359	4,408,721
2044	21,166,359	437,416	27,338	1,404	466,158	1,176,950	1,560,823	22,016,390	4,409,397
2045	22,016,390	454,918	28,432	1,384	484,734	1,225,175	1,623,463	22,899,412	4,409,853
2046	22,899,412	473,105	29,569	1,364	504,038	1,275,309	1,688,534	23,816,675	4,410,091
2047	23,816,675	492,006	30,750	1,344	524,100	1,327,405	1,756,128	24,769,498	4,410,119
2048	24,769,498	511,653	31,978	1,325	544,956	1,381,570	1,826,339	25,759,223	4,409,938
2049	25,759,223	532,078	33,255	1,306	566,639	1,437,895	1,899,269	26,787,236	4,409,550
2050	26,787,236	553,316	34,582	1,287	589,185	1,496,462	1,975,021	27,854,980	4,408,957
2051	27,854,980	575,402	35,963	1,268	612,633	1,557,375	2,053,695	28,963,933	4,408,159
2052	28,963,933	598,370	37,398	1,250	637,018	1,620,752	2,135,405	30,115,604	4,407,151

Projected Trust Fund Assets

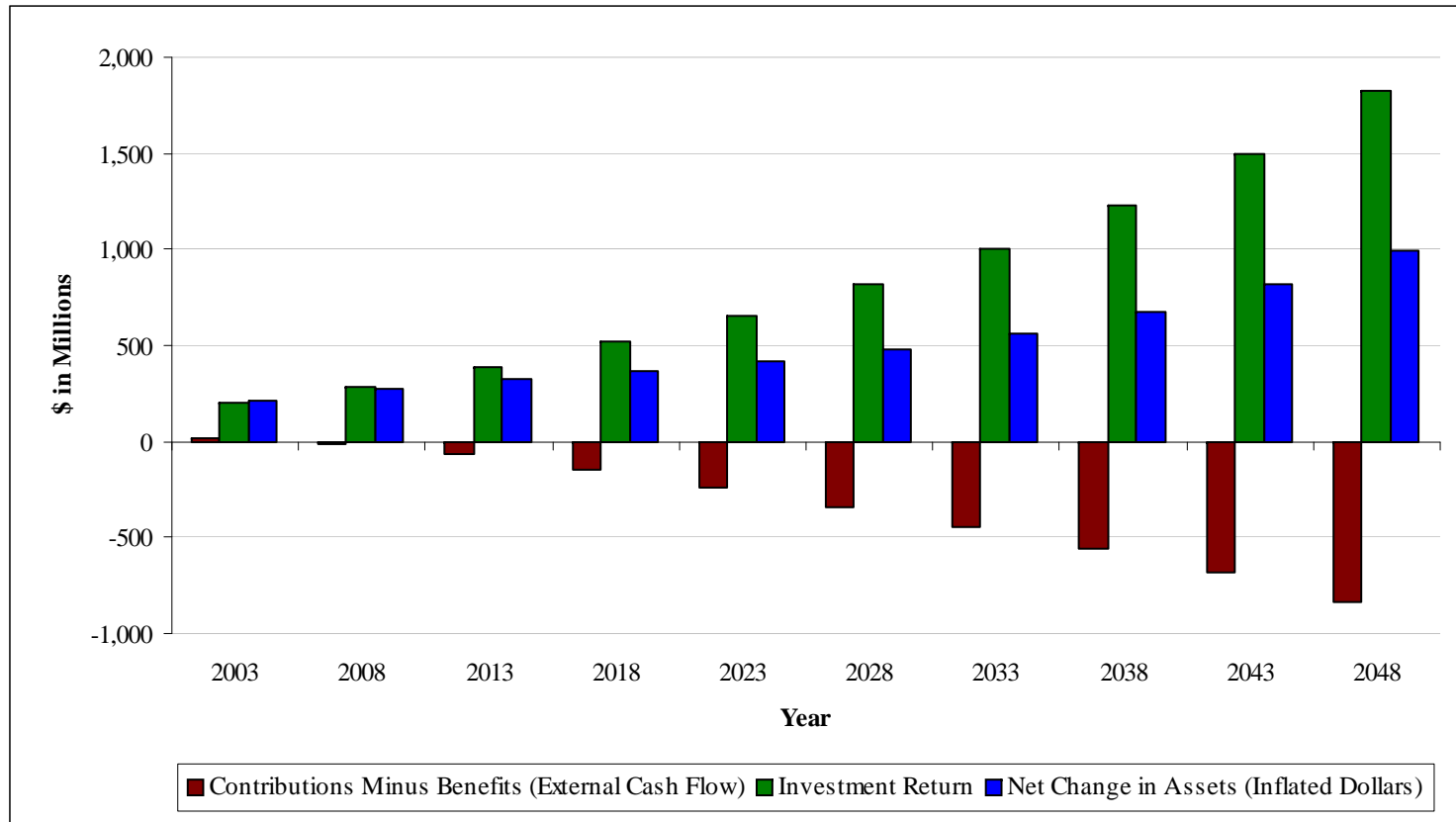


Projected Non-Investment Cash Flow
2003-2052 – (\$ in Thousands)

Year Ended February 28	External Cash Flow		Net External Cash Flow		Year Ended February 28	External Cash Flow		Net External Cash Flow	
	Inflow	Outflow	\$	% of Assets		Inflow	Outflow	\$	% of Assets
2003	\$84,444	\$71,442	\$13,002	0.50 %	2028	\$247,922	\$588,653	\$(340,731)	(3.07)%
2004	89,946	80,813	9,133	0.32 %	2029	258,012	618,846	(360,834)	(3.12)%
2005	95,414	90,414	5,000	0.16 %	2030	268,501	649,632	(381,131)	(3.16)%
2006	100,890	100,978	(88)	(0.00)%	2031	279,397	680,928	(401,531)	(3.19)%
2007	106,320	112,645	(6,325)	(0.18)%	2032	290,717	713,011	(422,294)	(3.22)%
2008	111,899	124,714	(12,815)	(0.34)%	2033	302,463	745,812	(443,349)	(3.25)%
2009	116,349	138,302	(21,953)	(0.54)%	2034	314,661	779,231	(464,570)	(3.27)%
2010	119,740	153,279	(33,539)	(0.77)%	2035	327,338	813,450	(486,112)	(3.28)%
2011	123,910	169,412	(45,502)	(0.98)%	2036	340,508	848,554	(508,046)	(3.30)%
2012	129,805	186,871	(57,066)	(1.15)%	2037	354,200	884,682	(530,482)	(3.31)%
2013	135,728	205,305	(69,577)	(1.32)%	2038	368,429	922,113	(553,684)	(3.32)%
2014	141,862	224,994	(83,132)	(1.49)%	2039	383,212	960,761	(577,549)	(3.33)%
2015	148,255	245,825	(97,570)	(1.65)%	2040	398,564	1,000,874	(602,310)	(3.33)%
2016	154,568	267,592	(113,024)	(1.81)%	2041	414,510	1,042,590	(628,080)	(3.34)%
2017	161,017	290,518	(129,501)	(1.96)%	2042	431,073	1,085,826	(654,753)	(3.35)%
2018	167,339	314,350	(147,011)	(2.11)%	2043	448,281	1,130,578	(682,297)	(3.35)%
2019	173,941	338,950	(165,009)	(2.25)%	2044	466,158	1,176,950	(710,792)	(3.36)%
2020	180,832	364,436	(183,604)	(2.38)%	2045	484,734	1,225,175	(740,441)	(3.36)%
2021	188,027	390,766	(202,739)	(2.50)%	2046	504,038	1,275,309	(771,271)	(3.37)%
2022	195,532	417,675	(222,143)	(2.62)%	2047	524,100	1,327,405	(803,305)	(3.37)%
2023	203,360	444,926	(241,566)	(2.71)%	2048	544,956	1,381,570	(836,614)	(3.38)%
2024	211,534	472,710	(261,176)	(2.80)%	2049	566,639	1,437,895	(871,256)	(3.38)%
2025	220,069	500,982	(280,913)	(2.88)%	2050	589,185	1,496,462	(907,277)	(3.39)%
2026	228,973	529,764	(300,791)	(2.95)%	2051	612,633	1,557,375	(944,742)	(3.39)%
2027	238,250	559,021	(320,771)	(3.02)%	2052	637,018	1,620,752	(983,734)	(3.40)%

The net external cash flow is currently in a positive position (i.e. benefits paid are less than contributions received). It is expected to decline steadily over the next 50 years. During this time, benefits paid will begin to exceed contributions received. Investment return will be needed to pay benefits (a natural result from level contribution financing). Long range, the 3.5% annual real investment return (return in excess of inflation) will be needed to pay benefits. The remainder of investment return (the inflation portion) is needed to preserve the purchasing power of the assets.

Projected Net Change in Assets Amounts of INFLATED Dollars



The results shown in the above chart do not show changes of constant value, because amounts of change are inflated dollar amounts.

The Net Change in Assets, the blue bars, indicate perpetual additions to trust fund assets. While this is true (and necessary) in inflated dollars, it is not true in terms of constant value. Constant value changes are shown by the chart on page C-15.

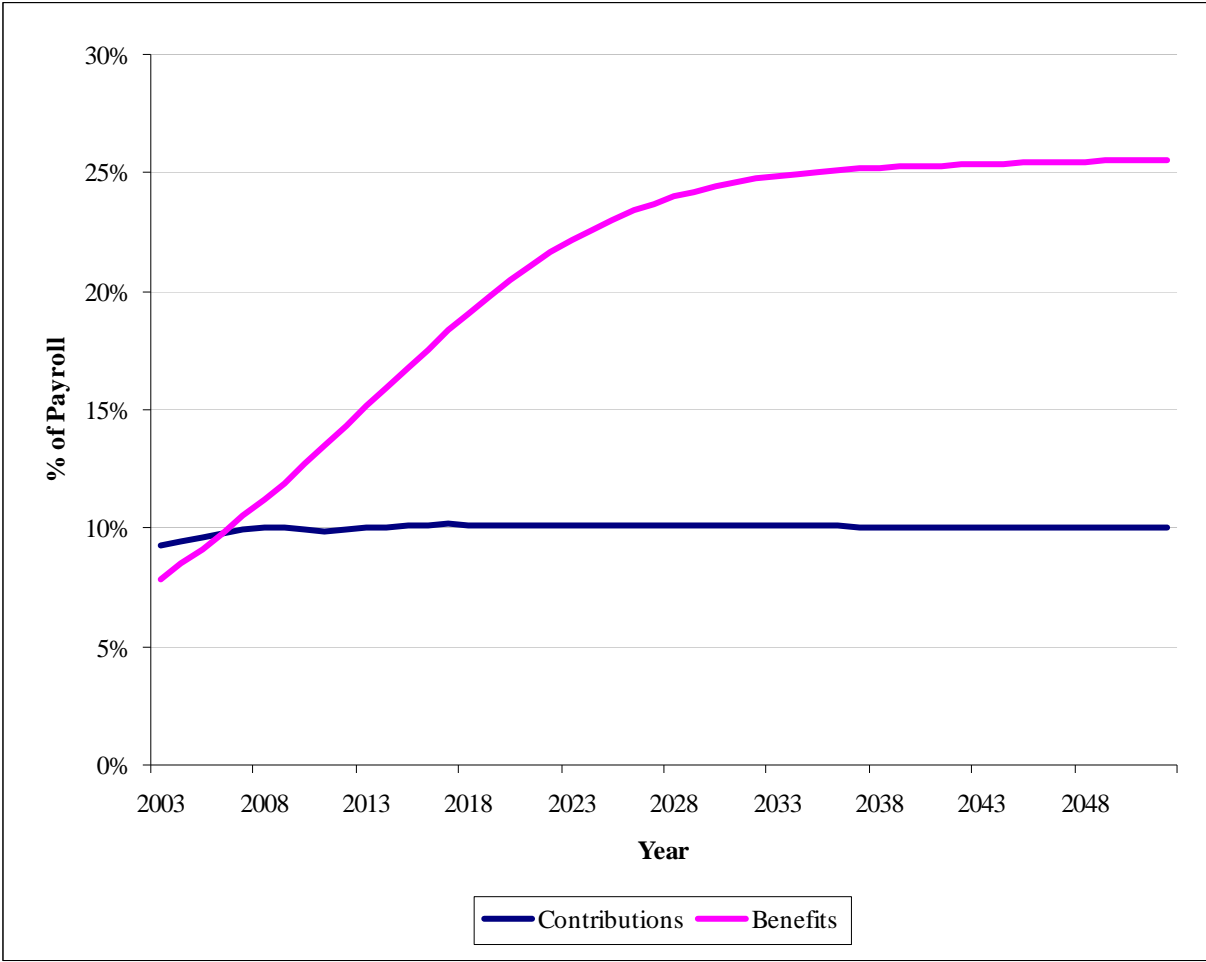
LAGERS Cash Flows as %'s of Payroll - 2003-2052

Year Ended February 28	External Cash Flow		Investment Return	Year Ended February 28	External Cash Flow		Investment Return
	Contributions Received	Benefits Paid			Contributions Received	Benefits Paid	
2003	9.27%	7.84%	21.65%	2028	10.10%	23.99%	33.40%
2004	9.47%	8.51%	22.41%	2029	10.10%	24.22%	33.46%
2005	9.64%	9.13%	23.17%	2030	10.09%	24.42%	33.50%
2006	9.79%	9.80%	23.94%	2031	10.09%	24.59%	33.54%
2007	9.91%	10.50%	24.70%	2032	10.09%	24.74%	33.57%
2008	10.02%	11.17%	25.45%	2033	10.08%	24.87%	33.59%
2009	10.02%	11.91%	26.19%	2034	10.08%	24.97%	33.61%
2010	9.91%	12.69%	26.90%	2035	10.08%	25.05%	33.63%
2011	9.87%	13.49%	27.58%	2036	10.08%	25.11%	33.64%
2012	9.94%	14.31%	28.22%	2037	10.07%	25.16%	33.65%
2013	10.00%	15.13%	28.84%	2038	10.07%	25.21%	33.65%
2014	10.06%	15.95%	29.42%	2039	10.07%	25.25%	33.66%
2015	10.11%	16.76%	29.96%	2040	10.07%	25.28%	33.67%
2016	10.14%	17.55%	30.46%	2041	10.07%	25.32%	33.67%
2017	10.16%	18.33%	30.92%	2042	10.06%	25.35%	33.68%
2018	10.15%	19.07%	31.34%	2043	10.06%	25.38%	33.68%
2019	10.15%	19.77%	31.71%	2044	10.06%	25.40%	33.68%
2020	10.14%	20.44%	32.04%	2045	10.06%	25.42%	33.69%
2021	10.14%	21.06%	32.32%	2046	10.06%	25.45%	33.69%
2022	10.13%	21.64%	32.57%	2047	10.06%	25.47%	33.69%
2023	10.12%	22.15%	32.78%	2048	10.05%	25.49%	33.70%
2024	10.12%	22.61%	32.96%	2049	10.05%	25.51%	33.70%
2025	10.12%	23.03%	33.11%	2050	10.05%	25.53%	33.70%
2026	10.11%	23.39%	33.23%	2051	10.05%	25.55%	33.69%
2027	10.11%	23.71%	33.32%	2052	10.05%	25.57%	33.69%

This schedule demonstrates two important points:

1. Benefit payout continues to grow in real dollars rising steadily throughout the projection period, and
2. Investment return has already become the largest source of revenue for the retirement system – a natural result of level contribution financing.

Projected Pattern of Contribution Income and Benefit Payout



LAGERS Projected Financial Growth Rates 2003-2052

Year Ended February 28	Contributions	Benefits	Assets	Year Ended February 28	Contributions	Benefits	Assets
2004	6.52%	13.12%	7.83%	2029	4.07%	5.13%	4.27%
2005	6.08%	11.88%	7.67%	2030	4.07%	4.97%	4.22%
2006	5.74%	11.68%	7.50%	2031	4.06%	4.82%	4.19%
2007	5.38%	11.55%	7.31%	2032	4.05%	4.71%	4.16%
2008	5.25%	10.71%	7.15%	2033	4.04%	4.60%	4.13%
2009	3.98%	10.89%	6.94%	2034	4.03%	4.48%	4.11%
2010	2.91%	10.83%	6.70%	2035	4.03%	4.39%	4.09%
2011	3.48%	10.53%	6.48%	2036	4.02%	4.32%	4.08%
2012	4.76%	10.31%	6.30%	2037	4.02%	4.26%	4.07%
2013	4.56%	9.86%	6.13%	2038	4.02%	4.23%	4.06%
2014	4.52%	9.59%	5.95%	2039	4.01%	4.19%	4.05%
2015	4.51%	9.26%	5.79%	2040	4.01%	4.18%	4.04%
2016	4.26%	8.85%	5.62%	2041	4.00%	4.17%	4.03%
2017	4.17%	8.57%	5.46%	2042	4.00%	4.15%	4.03%
2018	3.93%	8.20%	5.31%	2043	3.99%	4.12%	4.02%
2019	3.95%	7.83%	5.16%	2044	3.99%	4.10%	4.02%
2020	3.96%	7.52%	5.03%	2045	3.98%	4.10%	4.01%
2021	3.98%	7.22%	4.90%	2046	3.98%	4.09%	4.01%
2022	3.99%	6.89%	4.79%	2047	3.98%	4.09%	4.00%
2023	4.00%	6.52%	4.68%	2048	3.98%	4.08%	4.00%
2024	4.02%	6.24%	4.59%	2049	3.98%	4.08%	3.99%
2025	4.03%	5.98%	4.51%	2050	3.98%	4.07%	3.99%
2026	4.05%	5.75%	4.44%	2051	3.98%	4.07%	3.98%
2027	4.05%	5.52%	4.37%	2052	3.98%	4.07%	3.98%
2028	4.06%	5.30%	4.32%	2053	3.98%	4.07%	3.97%

This schedule demonstrates that financial growth rates eventually stabilize at the underlying assumed rate of wage inflation (4.0% for LAGERS).

LAGERS Projected Funded Ratios
2003-2052 – (\$ in Thousands)

Year Ended February 28	Valuation Assets	Accrued Liabilities	Funded Ratio	Year Ended February 28	Valuation Assets	Accrued Liabilities	Funded Ratio
2003	\$2,833,871	\$2,829,775	100.1%	2028	\$11,578,734	\$11,598,987	99.8%
2004	3,055,886	3,057,029	100.0%	2029	12,072,773	12,092,733	99.8%
2005	3,290,265	3,295,511	99.8%	2030	12,582,808	12,602,480	99.8%
2006	3,536,945	3,545,186	99.8%	2031	13,109,930	13,129,318	99.9%
2007	3,795,653	3,805,886	99.7%	2032	13,655,044	13,674,152	99.9%
2008	4,067,032	4,078,147	99.7%	2033	14,219,198	14,238,031	99.9%
2009	4,349,283	4,361,390	99.7%	2034	14,803,646	14,822,207	99.9%
2010	4,640,683	4,655,155	99.7%	2035	15,409,578	15,427,871	99.9%
2011	4,941,526	4,959,208	99.6%	2036	16,038,199	16,056,228	99.9%
2012	5,252,934	5,273,124	99.6%	2037	16,690,688	16,708,456	99.9%
2013	5,574,717	5,596,825	99.6%	2038	17,368,042	17,385,554	99.9%
2014	5,906,571	5,929,955	99.6%	2039	18,071,438	18,088,697	99.9%
2015	6,248,335	6,272,262	99.6%	2040	18,801,900	18,818,910	99.9%
2016	6,599,698	6,623,706	99.6%	2041	19,560,409	19,577,173	99.9%
2017	6,960,319	6,984,024	99.7%	2042	20,348,133	20,364,655	99.9%
2018	7,329,820	7,353,215	99.7%	2043	21,166,359	21,182,643	99.9%
2019	7,708,360	7,731,436	99.7%	2044	22,016,390	22,032,439	99.9%
2020	8,095,997	8,118,748	99.7%	2045	22,899,412	22,915,229	99.9%
2021	8,492,856	8,515,279	99.7%	2046	23,816,675	23,832,264	99.9%
2022	8,899,347	8,921,446	99.8%	2047	24,769,498	24,784,862	99.9%
2023	9,316,174	9,337,954	99.8%	2048	25,759,223	25,774,365	99.9%
2024	9,743,917	9,765,383	99.8%	2049	26,787,236	26,802,159	99.9%
2025	10,183,265	10,204,421	99.8%	2050	27,854,980	27,869,688	99.9%
2026	10,634,939	10,655,789	99.8%	2051	28,963,933	28,978,429	99.9%
2027	11,099,759	11,120,308	99.8%	2052	30,115,604	30,129,890	100.0%

Section D

Asset Data Used in the Valuations



Reported Accrued Assets Available for Benefits February 28, 2002

Statutory Funds	Reported Assets	Actuarial Value of Assets
Employers Accumulation Fund	\$1,432,539,239	\$1,543,329,341
Members Deposit Fund	62,603,672	62,603,672
Benefit Reserve Fund	940,467,441	1,010,156,078
Casualty Reserve Fund	7,002,910	7,521,826
Total	\$2,442,613,262	\$2,623,610,917

The Actuarial Value of Assets is based on market value, but with a 5-year smoothing of the difference between projected investment return, based on the actuarial assumption, and actual market to market returns. The derivation of the actuarial value of assets (also called the funding value of assets) is shown on pages D-3 and D-4. The funding value adjustment factor is applied to the reported cost value of each employer. The funding value adjustment factor serves two purposes:

- it incorporates the balance in the Income-Expense Fund for actuarial valuation purposes, since it is not allocated until June 30, and
- it converts the reported cost value of assets to the actuarial value of assets.

The Employers Accumulation Fund represents employer contributions accumulated for benefits to or on behalf of present members.

The Members Deposit Fund represents employee contributions accumulated for (1) monthly benefits upon future retirements and (2) refunds upon termination if monthly benefits are not payable.

The Benefit Reserve Fund represents employer and employee reserves held for the monthly benefits being paid to present retired lives.

The Casualty Reserve Fund represents employer contributions accumulated for the added liability incurred when a member becomes a disability retirement.

The Income-Expense Fund represents investment income received less administrative expenses paid. At the end of the system fiscal year interest is paid to the other four Funds from this Fund. The February 28, 2002 balance in the Income-Expense Fund was used for valuation purposes.

Investment Activities

A retirement system acquires and invests assets as the result of following the financial objective of level contribution rates. The Board of Trustees of LAGERS has the responsibility for seeing that the assets are invested effectively and within the limits imposed by law. The Board retains professional money managers to assist in the investment process, and reviews their activities throughout each year. The Board retains another professional firm to provide measurements of investment performance, and their reports are also reviewed regularly.

There follows a table showing investment credits to the various Funds of the system for the last 5 years.

Rates of Investment Return Allocated to LAGERS Fund Accounts

Year Ended June 30	Investment Credits as % of Fund Balance				Inflation Loss % (CPI)
	Casualty Reserve Fund A	Member Deposit Fund B	Benefit Reserve Fund C	Employer Accumulation Fund D	
1998	7.0%	4.0%	17.0%	18.0%	1.7%
1999	7.0	4.0	5.6	15.6	2.0
2000	7.0	4.0	14.4	30.5	3.7
2001	7.0	4.0	3.1	5.8	3.2
2002	7.5	4.0	(15.6)	0.0	1.1
5 Year Compound Average			4.2%	13.5%	2.3%

- A. Casualty Reserve assets are for the non-accrued service portion of disability benefits to future disabled lives. The investment percent is the rate set for actuarial purposes.
- B. Member Deposit assets are the contributions of present members. The investment percent, set by the Board, affects amounts payable to members who request a refund. The percent does not affect the monthly benefit of a retiring member.
- C. Benefit Reserve assets are for benefits to present retired lives. The investment credit is the remainder of net investment return after crediting the Casualty Reserve assets. This revised allocation of investment credits is intended to provide the resources for additional benefit increases after retirement, and is based upon a 1986 change in the LAGERS law. Beginning in 1999 the investment credit to the Benefit Reserve Fund (BRF) is limited, if the funded ratio of the BRF exceeds 140%. Beginning in 2002 the threshold was changed to 125%. In addition, for the 2002 interest credits the BRF interest credit was further reduced to permit a 0.0% interest credit to the EAF.
- D. Employer Accumulation assets are for benefits to future retired lives including the accrued service portion of disability benefits. The investment credit is the remainder of net investment return after crediting the Casualty Reserve assets, followed by a further adjustment for the investment credit to the Member Deposit assets (and beginning in 1999 for any reallocation of investment credits from the Benefit Reserve Fund). The Employer Accumulation Fund is responsible for covering liability increases resulting from inflation losses. The percentages shown include net realized capital gains on sale of investments (cost value).

Missouri LAGERS

Development of Funding Value of Retirement System Assets

Year Ending February 28:	1997	1998	1999	2000	2001
A. Funding Value Beginning of Year	\$1,199,182,467	\$1,352,136,335	\$1,588,516,530	\$1,811,923,839	\$2,123,617,043
B. Market Value End of Year	1,490,354,747	1,885,644,230	2,011,620,041	2,485,015,501	2,489,404,871
C. Market Value Beginning of Year	1,327,366,258	1,490,354,747	1,885,644,230	2,011,620,041	2,485,015,501
D. Non-Investment/Administrative Net Cash Flow	17,268,282	44,014,639	30,577,683	24,151,871	26,601,543
E. Investment Income					
E1. Market Total: B-C-D	145,720,207	351,274,844	95,398,128	449,243,589	(22,212,173)
E2. Amount for Immediate Recognition	84,547,163	96,190,056	112,266,376	127,679,984	149,584,247
E3. Amount for Phased-In Recognition: E1-E2	61,173,044	255,084,788	(16,868,248)	321,563,605	(171,796,420)
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.20 x E3	12,234,609	51,016,958	(3,373,650)	64,312,721	(34,359,284)
F2. First Prior Year	35,670,710	12,234,609	51,016,958	(3,373,650)	64,312,721
F3. Second Prior Year	(14,985,376)	35,670,710	12,234,609	51,016,958	(3,373,650)
F4. Third Prior Year	12,238,600	(14,985,376)	35,670,710	12,234,609	51,016,958
F5. Fourth Prior Year	5,979,880	12,238,599	(14,985,377)	35,670,711	12,234,608
F6. Total Recognized Investment Gain	51,138,423	96,175,500	80,563,250	159,861,349	89,831,353
G. Funding Value End of Year: A + D + E2 + F6	\$1,352,136,335	\$1,588,516,530	\$1,811,923,839	\$2,123,617,043	\$2,389,634,186
H. Difference between Market & Funding Value	138,218,412	297,127,700	199,696,202	361,398,458	99,770,685
I. Funding Value Adjustment Factor (ratio of funding value to EAF+MDF+CRF+BRF cost value)	1.1283	1.1445	1.0993	1.1467	1.0381
J. Recognized Rate of Return	11.23%	14.00%	12.02%	15.76%	11.20%
K. Market Rate of Return	10.91%	23.23%	5.02%	22.20%	(0.89)%

The asset valuation method recognizes assumed investment income (line E2) fully each year. Differences between actual and expected investment income (line E3) are phased in over a closed 5 year period. If in the future, total investment income (line E1) were always equal to assumed investment income (line E2), Funding Value and Market Value would be identical 4 years after the valuation date (line H).

Note: Asset values on this page differ slightly from asset values reported elsewhere in this report, due to a number of miscellaneous closing entries that are not included in the above amounts.

Missouri LAGERS

Development of Funding Value of Retirement System Assets

Year Ending February 28:	2002	2003	2004	2005	2006
A. Funding Value Beginning of Year	\$2,389,634,186				
B. Market Value End of Year	2,407,123,169				
C. Market Value Beginning of Year	2,489,404,871				
D. Non-Investment/Administrative Net Cash Flow	27,079,368				
E. Investment Income					
E1. Market Total: B-C-D	(109,361,070)				
E2. Amount for Immediate Recognition	180,238,040				
E3. Amount for Phased-In Recognition: E1-E2	(289,599,110)				
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.20 x E3	(57,919,822)				
F2. First Prior Year	(34,359,284)	(57,919,822)			
F3. Second Prior Year	64,312,721	(34,359,284)	(57,919,822)		
F4. Third Prior Year	(3,373,650)	64,312,721	(34,359,284)	(57,919,822)	
F5. Fourth Prior Year	51,016,956	(3,373,648)	64,312,721	(34,359,284)	(57,919,822)
F6. Total Recognized Investment Gain	19,676,921	(31,340,033)	(27,966,385)	(92,279,106)	(57,919,822)
G. Funding Value End of Year: A + D + E2 + F6	\$2,616,628,515				
H. Difference between Market & Funding Value	(209,505,346)	(178,165,313)	(150,198,928)	(57,919,822)	
I. Funding Value Adjustment Factor (ratio of funding value to EAF+MDF+CRF+BRF cost value)	1.0741				
J. Recognized Rate of Return	8.32%				
K. Market Rate of Return	(4.37)%				

The asset valuation method recognizes assumed investment income (line E2) fully each year. Differences between actual and expected investment income (line E3) are phased in over a closed 5 year period. If in the future, total investment income (line E1) were always equal to assumed investment income (line E2), Funding Value and Market Value would be identical 4 years after the valuation date (line H).

Note: Asset values on this page differ slightly from asset values reported elsewhere in this report, due to a number of miscellaneous closing entries that are not included in the above amounts.

Section E

Benefit Provisions Considered in the Valuation



Missouri Local Government Employees Retirement System
Brief Summary of LAGERS
Benefits and Conditions Evaluated and/or Considered
Through February 28, 2002
(Section references are to RSMo)

Voluntary Retirement. Sections 70.645 & 70.600. A member may retire with an age & service allowance after both (i) completing 5 years of credited service, and (ii) attaining the minimum service retirement age.

The minimum service retirement age is age 60 for a general employee and age 55 for a police or fire employee. Optionally, employers may also elect to provide for unreduced benefits for employees whose combination of years of age and years of service equals 80 or more.

Final Average Salary. Section 70.600. The average of a member's monthly compensation during the period of 60 consecutive months (or optionally, 36 consecutive months) of credited service producing the highest monthly average, which period is contained within the 120 consecutive months of credited service immediately preceding retirement.

Age & Service Allowance. Section 70.655. The allowance, payable monthly for life, equals a specified percent of a member's final average salary multiplied by the number of years of credited service. Each employer elects the percent applicable to its members, from the following programs:

- L-1 Benefit Program: 1.00% for life
- L-3 Benefit Program: 1.25% for life
- L-7 Benefit Program: 1.50% for life
- LT-4 Benefit Program: 1.00% for life, plus 1.00% to age 62
- LT-5 Benefit Program: 1.25% for life, plus 0.75% to age 62
- LT-8 Benefit Program: 1.50% for life, plus 0.50% to age 62
- LT-4(65) Benefit Program: 1.00% for life, plus 1.00% to age 65
- LT-5(65) Benefit Program: 1.25% for life, plus 0.75% to age 65
- LT-8(65) Benefit Program: 1.50% for life, plus 0.50% to age 65
- L-9 Benefit Program: 1.60% for life
- LT-10(65) Benefit Program: 1.60% for life, 0.40% to age 65
- L-6 Benefit Program: 2.00% for life

The only LT benefit programs available for adoption after August 1, 1994 are the LT(65) programs.

Benefit program L-11, available only to groups not covered by social security, provides for 2.50% for life.

Subsequent to joining the System the governing body can elect to change benefit programs for the employees, but not more often than once every 2 years.

Early Allowance. Section 70.670. A member may retire with an early allowance after both (i) completing 5 years of credited service, and (ii) attaining age 55 if a general employee or age 50 if a police or fire employee.

The early allowance amount, payable monthly for life, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of early retirement, but reduced to reflect the fact that the age when payments begin is younger than the minimum service retirement age. The amount of the reduction is 1/2% of 1% (.005) for each month the age at retirement is younger than the minimum service retirement age.

Deferred Allowance. Section 70.675. If a member leaves LAGERS-covered employment (i) before attaining the early retirement age, and (ii) after completing 5 years of credited service, the member becomes eligible for a deferred allowance; provided the former member lives to the minimum service retirement age and does not withdraw the accumulated contributions.

The deferred allowance amount, payable monthly for life from the minimum service retirement age, is computed in the same manner as an age & service allowance, based upon the service and earnings record to time of leaving LAGERS coverage.

Deferred allowances are also payable any time after reaching the early retirement age, with the reduction for early retirement noted on the previous page.

Non-Duty Disability Allowance. Section 70.680. A member with 5 or more years of credited service who becomes totally and permanently disabled from other than duty-connected causes become eligible to receive a non-duty disability allowance computed in the same manner as an age & service allowance, based upon the service & earnings record to time of disability.

Duty Disability Allowance. Section 70.680. A member who becomes totally and permanently disabled from duty-connected causes becomes eligible to receive a duty disability allowance computed in the same manner as an age & service allowance, based upon the earnings record to time of disability but based upon the years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Death-in-Service. Section 70.661. Upon the death of a member who had completed 5 years of credited service, the eligible surviving dependents receive the following benefits:

(a) The surviving spouse receives an allowance equal to the Option A allowance (joint and 75% survivor benefit) computed based upon the deceased members' service & earnings record to time of death.

(b) When no spouse benefit is payable, the dependent children under age 18 (age 23 if they are full-time students) each receive an equal share of 60% of an age & service allowance computed based upon the deceased member's service & earnings record to time of death.

(c) If the death is determined to be duty related, the 5 year service requirement is waived and the benefit is based on years of credited service the member would have completed had the member continued in LAGERS-covered employment to age 60.

Benefit Changes After Retirement. Section 70.655. For retirements effective after September 28, 1975, there is an annual redetermination of monthly benefit amount, beginning the October first following 12 months of retirement. As of each October first the amount of each eligible benefit is redetermined as follows:

(a) Subject to the maximum in (b), the redetermined amount is the amount otherwise payable multiplied by: 100% plus up to 4%, as determined by the LAGERS Board of Trustees, for each full year of retirement.

(b) The redetermined amount may not exceed the amount otherwise payable multiplied by the ratio of the Consumer Price Index for the immediately preceding month of June to the Consumer Price Index for the month of June immediately preceding retirement.

Member Contributions. Sections 70.690 & 70.700. Each member contributes 4% of compensation beginning after completion of sufficient employment of 6 months of credited service.

If a member leaves LAGERS-covered employment before an allowance is payable, the accumulated contributions are refunded to the member. If the member dies, his accumulated contributions are refunded to a designated beneficiary.

The law governing LAGERS also has a provision for the adoption of a non-contributory plan in which the full cost of LAGERS participation is paid by the employer. Adoption of the non-contributory provisions may be done at the time of membership or a later date; however, a change from contributory to non-contributory or vice-versa may not be made more frequently than every 5 years. Under the non-contributory provisions there is no individual account maintained for each employee and no refund of contributions if an employee terminates before being eligible for a benefit.

Employer Contributions. Section 70.730. Each employer contributes the remainder amounts necessary to finance the employees' participation in LAGERS. Contributions to LAGERS are determined based upon level-percent-of-payroll principles, so that contribution rates do not have to increase over decades of time.

Benefit Programs in Effect as of February 28, 2002

Benefit programs now available to each employer are:

L-1, since 1967	LT-8, since 1988
L-3, since 1975	LT-8(65), since 1994
LT-4, since 1977	L-9, since 1995
LT-4(65), since 1994	LT-10(65) since 1995
LT-5, since 1977	L-11, since 2000
LT-5(65), since 1994	Non-Contributory, since 1983
L-6, since 1987	3 Year Final Average Salary (FAS), since 1984
L-7, since 1988	Rule of 80, since 1988

The only LT benefit programs that can be adopted after August 1, 1994 are the LT(65) programs.

Please see pages E-1 through E-3 for a summary of LAGERS provisions.

When the 2002 actuarial valuations were made, the Benefit Programs evaluated were as follows:

FAS	Groups	Benefit Programs																				Totals
		Non-Contributory										Contributory										
		L-1	L-3	LT-4	LT-5	L-6	L-7	LT-8	L-9	LT-10	L-11	L-1	L-3	LT-4	LT-5	L-6	L-7	LT-8	L-9	LT-10	L-11	
5 yr.	General	40	30	1	7	6	35	11	5	3		57	26		1	1	12	3	5			243
	Police	21	18	1	4	5	23	5	2	1		33	10			1	7	3	3			137
	Fire	<u>4</u>	<u>4</u>	---	<u>2</u>	<u>1</u>	<u>3</u>	<u>3</u>	<u>1</u>	<u>1</u>		<u>4</u>	<u>2</u>		---	---	<u>1</u>	---	---			<u>26</u>
	Totals	65	52	2	13	12	61	19	8	5		94	38		1	2	20	6	8			406
3 yr.	General	13	16		5	18	57	24	12	14	1	15	17		2	14	31	3	5	3		250
	Police	8	7		5	10	25	17	10	8		4	5		1	9	12	1	4	1		127
	Fire	<u>1</u>	<u>3</u>		<u>3</u>	<u>3</u>	<u>6</u>	<u>10</u>	<u>1</u>	<u>4</u>	---	---	---		<u>2</u>	---	<u>1</u>	---	<u>1</u>	---		<u>35</u>
	Totals	22	26		13	31	88	51	23	26	1	19	22		5	23	44	4	10	4		412

The above LT columns include both the LT(62) and LT(65) benefit programs. The table includes 27 groups with no active members.

Section F

Participant Data

Participating Employers Evaluated February 28, 2002

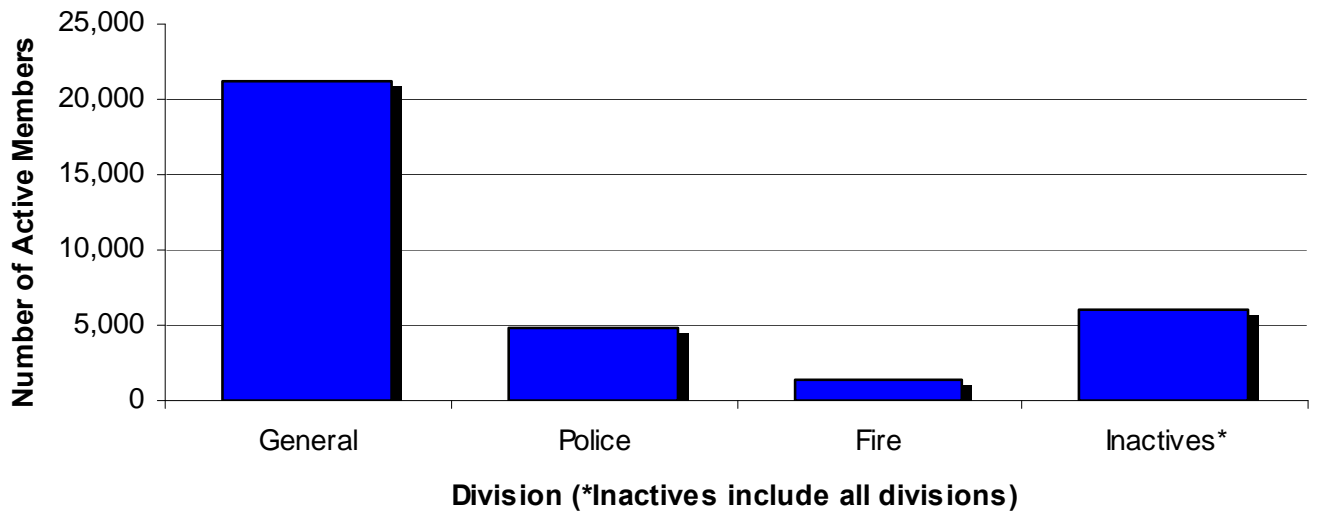
Type of Group	Number of Participating Employers
General Only	217
Fire Only	4
General and Police	201
General and Fire	5
General and Police and Fire	50
Total	477

Active and Inactive Members in Valuations February 28, 2002

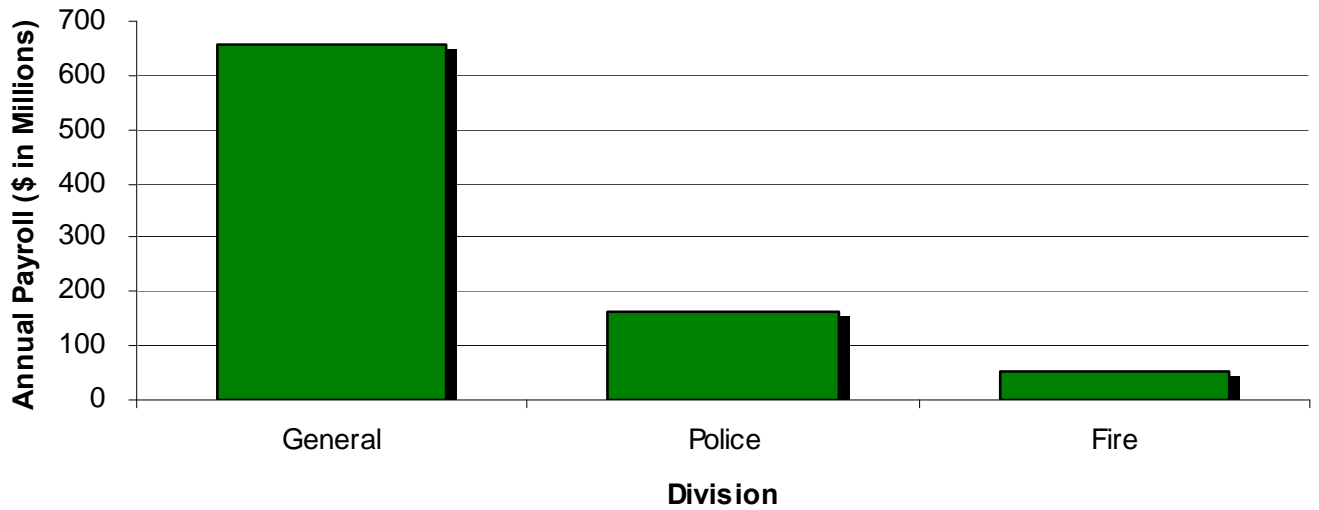
Classification	Number of		Annual Payroll
	Active Members	Valuation Groups*	
Active members			
General	21,155	481	\$655,787,170
Police	4,831	251	164,418,978
Fire	<u>1,342</u>	<u>59</u>	<u>54,855,144</u>
Total Actives	27,328	791	\$875,061,292
Inactive Members	<u>6,007</u>		
Total members	33,335		

* Each Police group and each Fire group is evaluated separately. Each general group is evaluated separately, but also may be broken into sub-groups for separate financial experience if the employer desires separate employer rates for internal accounting purposes.

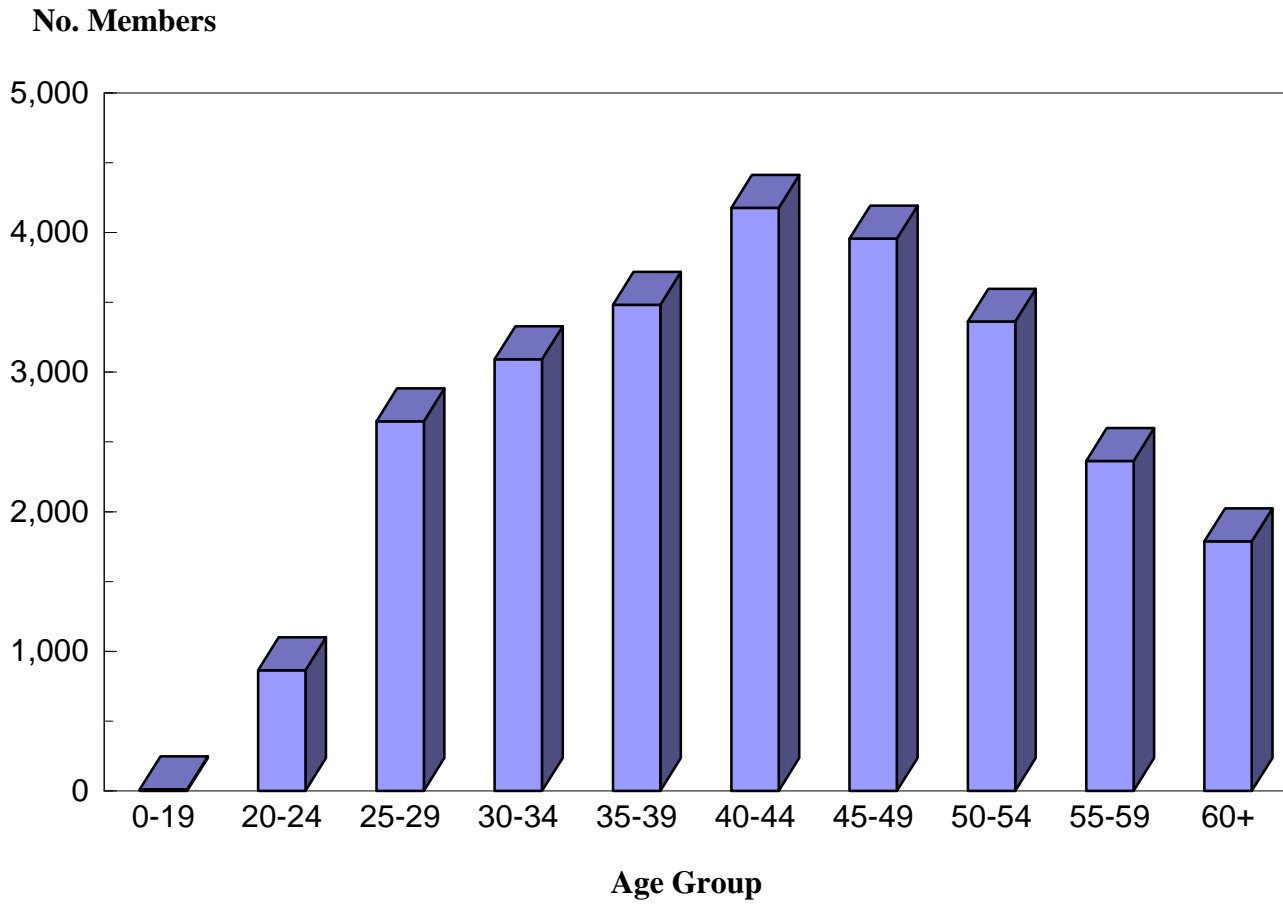
**Missouri LAGERS
Active Members by Division**



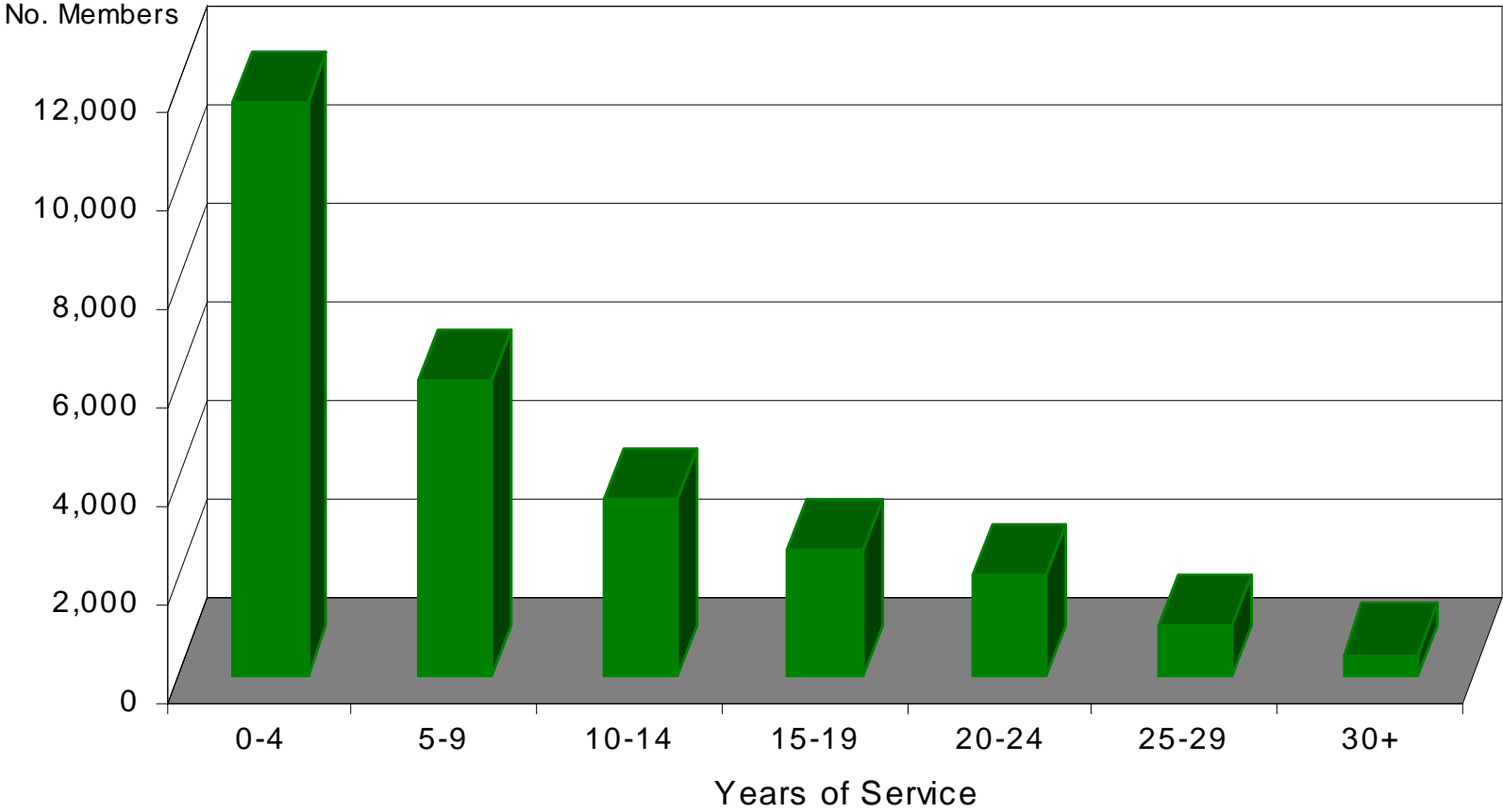
**Missouri LAGERS
Annual Payroll by Division**



**Missouri LAGERS
Distribution of Active Members
By Age
February 28, 2002**



Missouri LAGERS
Distribution of Active Members
By Service
February 28, 2002



GENERAL MEMBERS
MEN Active Members February 28, 2002
By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	6							6	\$ 128,577
20-24	442	5						447	10,130,525
25-29	657	142	2					801	22,067,556
30-34	712	373	90	5				1,180	37,820,047
35-39	610	365	300	137	8			1,420	46,801,882
40-44	668	445	299	295	239	16		1,962	67,405,504
45-49	555	364	301	255	342	159	6	1,982	73,344,842
50-54	405	322	241	236	268	196	71	1,739	66,072,216
55-59	327	234	179	181	175	117	108	1,321	48,019,341
60	45	37	37	28	20	21	17	205	6,935,840
61	40	35	25	22	25	15	21	183	6,357,194
62	36	25	26	27	17	6	18	155	5,273,024
63	29	25	22	12	8	3	10	109	3,223,335
64	23	26	12	9	9	3	5	87	3,133,320
65	8	22	14	12	8	4	8	76	2,399,384
66	7	9	11	4	3	3	5	42	1,480,952
67	7	11	4	5	3	1	3	34	1,239,554
68	6	9	7	5	2	1	1	31	1,070,533
69	9	6	4	2	2	1	2	26	882,615
70 & Over	13	19	20	19	7	3	8	89	2,683,018
Totals	4,605	2,474	1,594	1,254	1,136	549	283	11,895	\$406,469,259

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

Age: 44.5 years
Service: 10.2 years
Annual Pay: \$34,171

GENERAL MEMBERS
WOMEN Active Members February 28, 2002
By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	8							8	\$ 105,661
20-24	312	2						314	6,350,908
25-29	602	97	5					704	16,986,418
30-34	661	258	63	1				983	25,985,590
35-39	589	286	165	65	4			1,109	29,682,482
40-44	684	373	191	120	85	4		1,457	39,935,512
45-49	605	383	234	146	130	45		1,543	43,695,210
50-54	437	340	245	133	90	77	21	1,343	38,115,961
55-59	316	203	174	141	108	51	29	1,022	27,994,940
60	33	41	30	20	15	11	10	160	4,344,064
61	35	33	25	20	14	6	5	138	3,704,178
62	35	29	15	13	10	5	6	113	3,024,970
63	13	12	10	16	13	5	4	73	1,948,728
64	21	16	5	6	9	9	3	69	1,867,361
65	13	9	6	3	5	3	3	42	988,090
66	8	13	10	5	3	2	6	47	1,388,792
67	5	7	10	10	3	2	4	41	1,156,142
68	5	1	3	2	1	2	2	16	424,843
69	4	5	4	3	3	1		20	359,197
70 & Over	13	15	5	6	9	4	6	58	1,258,864
Totals	4,399	2,123	1,200	710	502	227	99	9,260	\$249,317,911

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

Age: 44.3 years
Service: 8.0 years
Annual Pay: \$26,924

POLICE Active Members February 28, 2002
By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
Under 20	1							1	\$ 19,640
20-24	207	1						208	5,249,713
25-29	732	93						825	24,015,824
30-34	586	406	52					1,044	33,842,011
35-39	270	199	180	41				690	23,723,498
40-44	133	123	128	134	43			561	20,998,100
45-49	114	114	90	121	116	32		587	22,958,739
50-54	79	63	70	72	70	73	6	433	16,758,267
55-59	82	58	57	38	34	35	17	321	11,684,760
60	10	5	5	4	1	2	2	29	1,080,689
61	6	4	5	7	3	2	2	29	942,512
62	4	7	4	5	3	4	2	29	997,478
63	3	7	6	1	1		3	21	700,342
64	2	3	3	2	3		1	14	437,514
65	1	2	1	3	1			8	253,390
66	1	4	2					7	159,104
67	1	3		2	1			7	193,811
68		2	1	1				4	103,201
69	2			1				3	60,425
70 & Over	4	2	3	1				10	239,960
Totals	2,238	1,096	607	433	276	148	33	4,831	\$164,418,978

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

Age: 38.9 years
Service: 8.1 years
Annual Pay: \$34,034

**FIRE Active Members February 28, 2002
By Attained Age and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	26							26	\$ 729,580
25-29	128	33						161	5,387,540
30-34	130	107	27					264	9,701,921
35-39	47	74	78	25				224	8,964,097
40-44	24	29	49	71	20	2		195	8,343,577
45-49	11	21	28	54	76	29		219	9,970,489
50-54	7	17	14	17	43	59	12	169	7,899,507
55-59	3	4	2	3	11	21	18	62	2,939,379
60		1					3	4	214,870
61		1			2		3	6	226,714
62	1		1	1	1	1	1	6	279,939
63					1			1	27,709
64			1		1			2	73,266
65							1	1	27,531
68	1							1	32,408
70 & Over							1	1	36,617
Totals	378	287	200	171	155	112	39	1,342	\$54,855,144

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

Age: 40.1 years
Service: 12.1 years
Annual Pay: \$40,876

Participating Employers and Members in Valuations 10 Year Comparative Statement

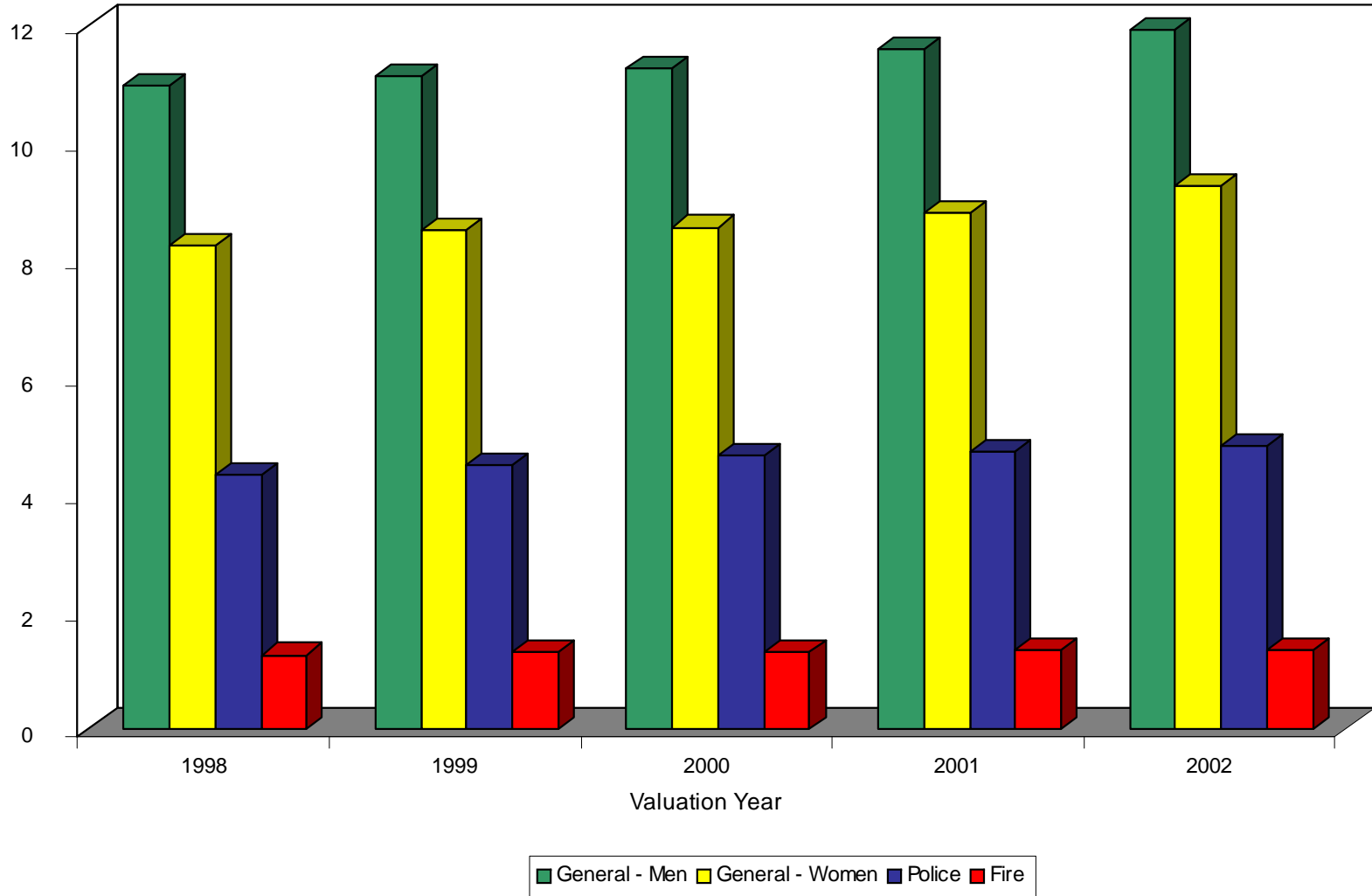
Valuation Date	Number of		Active Members				Inflation Increase % (C.P.I.)
	Participating Employers	Valuation Groups	Number	Annual Payroll	Average Pay	% Increase	
2-28-93	369	634	20,580	\$472,928,628	\$22,980	1.9%	3.3%
2-28-94	371	645	21,339	505,208,639	23,675	3.0	2.5
2-28-95	376	655	21,984	534,173,422	24,298	2.6	2.9
2-29-96	384	665	23,000	581,120,176	25,266	4.0	2.7
2-28-97	398	686	23,924	627,184,823	26,216	3.8	3.0
2-28-98	415	711	24,767	667,085,761	26,934	2.7	1.4
2-28-99	432	731	25,391	716,154,828	28,205	4.7	1.6
2-29-00	443	747	25,747	757,753,142	29,431	4.3	3.2
2-28-01	463	777	26,423	808,959,105	30,616	4.0	3.5
2-28-02	477	791	27,328	875,061,292	32,021	4.6	1.1
			10 Year Compound Average			3.6	2.5

Active Members in Valuations - Group Averages
(averages not used in valuations; computed and shown because of general information value)

Employee Type	Valuation at 2-28	No. of Members	----- Group Averages -----		Annual Payroll Average	Change	Inflation Increase % (C.P.I)
			Completed Years Age	Service			
General - Men	1993	9,690	42.9	10.0	24,625	+1.4	+3.3
	1994	9,882	43.2	10.2	25,542	+3.7	+2.5
	1995	10,068	43.2	10.1	26,190	+2.5	+2.9
	1996	10,398	43.4	10.1	27,310	+4.3	+2.7
	1997	10,694	43.5	10.1	28,327	+3.7	+3.0
	1998	10,955	43.8	10.2	28,943	+2.2	+1.4
	1999	11,109	44.0	10.3	30,325	+4.8	+1.6
	2000	11,250	44.2	10.2	31,583	+4.1	+3.2
	2001	11,576	44.4	10.2	32,769	+3.8	+3.5
	2002	11,895	44.5	10.2	34,171	+4.3	+1.1
General - Women	1993	6,346	43.1	7.9	18,827	+2.6	+3.3
	1994	6,632	43.1	8.0	19,477	+3.5	+2.5
	1995	6,935	43.2	7.9	20,156	+3.5	+2.9
	1996	7,413	43.0	7.8	20,984	+4.1	+2.7
	1997	7,834	43.1	7.8	21,730	+3.6	+3.0
	1998	8,227	43.2	7.8	22,412	+3.1	+1.4
	1999	8,491	43.3	7.9	23,406	+4.4	+1.6
	2000	8,543	43.7	8.0	24,551	+4.9	+3.2
	2001	8,793	44.1	8.0	25,716	+4.7	+3.5
	2002	9,260	44.3	8.0	26,924	+4.7	+1.1
Police	1993	3,487	39.0	7.5	23,992	+2.5	+3.3
	1994	3,714	39.0	7.6	24,425	+1.8	+2.5
	1995	3,831	38.9	7.6	25,049	+2.6	+2.9
	1996	4,049	38.8	7.6	26,006	+3.8	+2.7
	1997	4,173	38.7	7.8	27,318	+5.0	+3.0
	1998	4,330	38.7	7.8	28,545	+4.5	+1.4
	1999	4,492	38.6	7.9	29,926	+4.8	+1.6
	2000	4,654	38.8	8.0	30,996	+3.6	+3.2
	2001	4,720	38.8	8.0	32,307	+4.2	+3.5
	2002	4,831	38.9	8.1	34,034	+5.3	+1.1
Fire	1993	1,057	39.1	11.9	29,493	+4.5	+3.3
	1994	1,111	39.1	11.4	29,629	+0.5	+2.5
	1995	1,150	39.2	11.4	30,215	+2.0	+2.9
	1996	1,140	39.6	11.8	31,840	+5.4	+2.7
	1997	1,223	39.5	11.7	32,729	+2.8	+3.0
	1998	1,255	39.4	11.7	33,491	+2.3	+1.4
	1999	1,299	39.6	11.7	35,490	+6.0	+1.6
	2000	1,300	39.6	11.8	37,275	+5.0	+3.2
	2001	1,334	39.8	11.9	38,242	+2.6	+3.5
	2002	1,342	40.1	12.1	40,876	+6.9	+1.1

Missouri LAGERS Active Members 1998 - 2002

Members (Thousands)



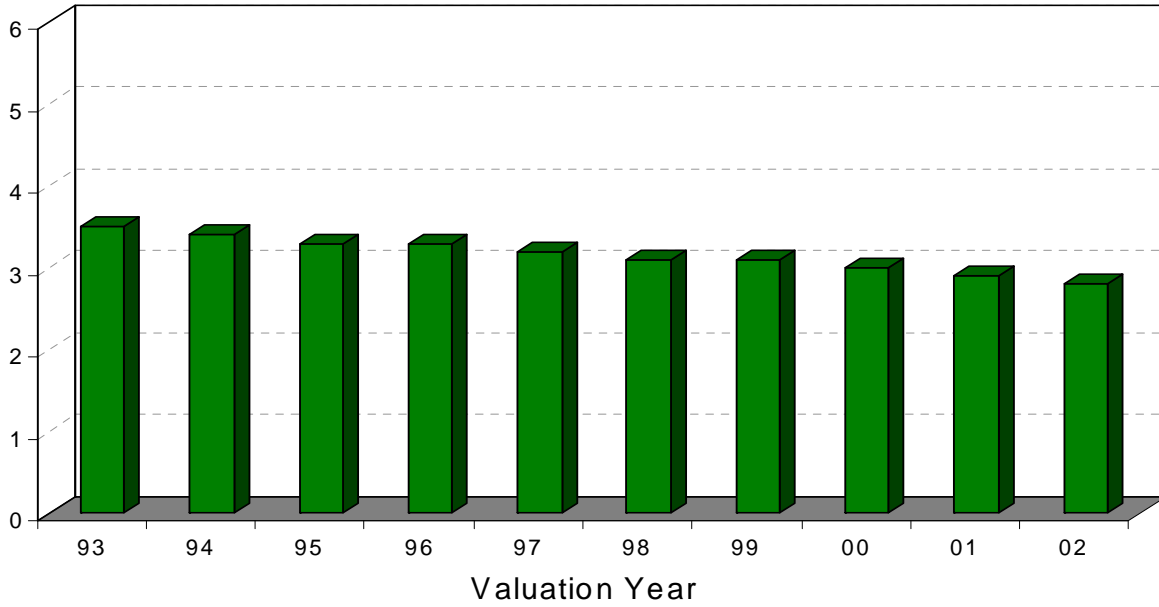
Retirants and Beneficiaries Added to and Removed from Rolls 10 Year Comparative Statement

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of Year		% Incr. in Annual Allowances	Retired Lives in Relation to Active Members	
	No.	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances		Active Members Per Recipient	Allowances as Percents of Active Payroll
2-28-93	528	\$3,220,394	220	\$ 643,464	5,953	\$22,150,640	13.2%	3.5	4.7%
2-28-94	544	3,500,340	293	930,039	6,204	24,720,941	11.6	3.4	4.9
2-28-95	712	5,075,916	282	1,197,176	6,634	28,599,681	15.7	3.3	5.4
2-29-96	653	4,764,570	246	1,022,382	7,041	32,341,869	13.1	3.3	5.6
2-28-97	695	5,656,604	275	1,239,056	7,461	36,759,417	13.7	3.2	5.9
2-28-98	741	6,251,387	315	1,411,336	7,887	41,599,468	13.2	3.1	6.2
2-28-99	748	6,620,521	339	1,854,143	8,296	46,365,846	11.5	3.1	6.5
2-29-00	769	7,394,519	371	1,839,075	8,694	51,921,290	12.0	3.0	6.9
2-28-01	816	8,094,550	330	2,026,823	9,180	57,989,017	11.7	2.9	7.2
2-28-02	806	9,203,832	385	2,191,355	9,601	65,001,494	12.1	2.8	7.4

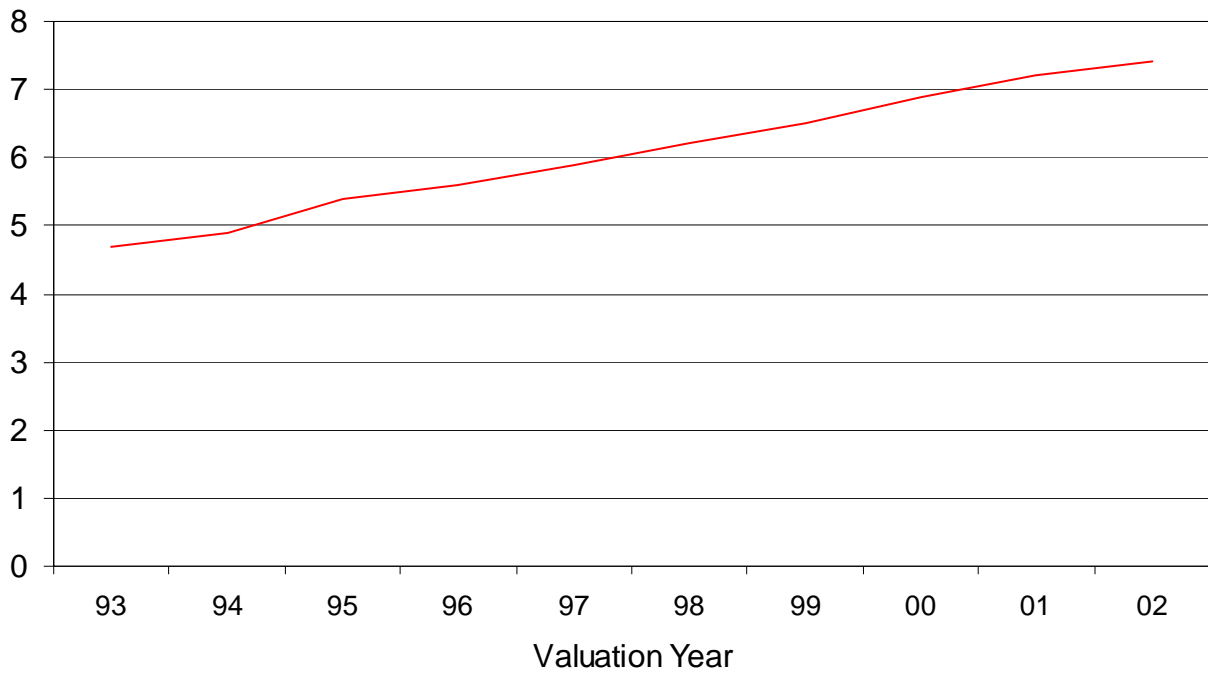
* Includes post-retirement adjustments.

Retirants and Beneficiaries Comparative Data

Active Members Per Benefit Recipient



Allowances as % of Active Pay



**Retirants and Beneficiaries on Rolls February 28, 2002
By Disbursing Fund and Type of Benefit Being Paid**

Type of Benefit	Number	Annual Allowances
Service Early & Deferred		
Life Option	4,627	\$30,643,217
Option A	1,270	10,344,588
Option B	825	8,826,654
Option C	740	4,506,815
Beneficiary Receiving	<u>758</u>	<u>2,848,167</u>
Totals	8,220	57,169,441
Duty Disability		
Life Option	195	2,023,184
Option A	81	713,800
Option B	29	274,965
Option C	<u>18</u>	<u>153,147</u>
Totals	323	3,165,096
Non-Duty Disability		
Life Option	201	1,137,831
Option A	77	432,813
Option B	40	293,288
Option C	<u>42</u>	<u>264,237</u>
Totals	360	2,128,169
Beneficiary receiving	<u>148</u>	<u>568,409</u>
Total Disability	831	5,861,674
Death-In-Service		
Spouse Receiving	513	1,910,675
Children Receiving	<u>37</u>	<u>59,704</u>
Totals	550	1,970,379
Totals	9,601	\$65,001,494

Section G

Computed Employer Contributions: Summary of Computed Employer Contribution Rates

**Computed Employer Contributions: Non-Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002**

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-1									
General:	1-9	5	4	7	4		2	1	23
	10-49	6	1	4		4			15
	50 & up	<u>1</u>	—	<u>1</u>	—	—	—	—	<u>2</u>
	Totals	12	5	12	4	4	2	1	40
Police:	1-9	5	4	2	2	1		1	15
	10-49	3	2		1				6
	50 & up	—	—	—	—	—		—	—
	Totals	8	6	2	3	1		1	21
Fire:	1-9			1					1
	10-49	3							3
	50 & up	—		—					—
	Totals	3		1					4
Totals:		23	11	15	7	5	2	2	65
Benefit Program L-3									
General:	1-9	5	1	2	1		2		11
	10-49	5	2	1	3	1			12
	50 & up	<u>6</u>	<u>1</u>	—	—	—	—	—	<u>7</u>
	Totals	16	4	3	4	1	2		30
Police:	1-9	5	1	1				1	8
	10-49	8			1	1			10
	50 & up	—	—	—	—	—		—	—
	Totals	13	1	1	1	1		1	18
Fire:	1-9		1						1
	10-49	2							2
	50 & up	—	—	<u>1</u>					<u>1</u>
	Totals	2	1	1					4
Totals		31	6	5	5	2	2	1	52

* Dollar contribution rates for groups presently without active members.

Computed Employer Contributions: Non-Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-4 (62 or 65)									
General:	1-9					1			1
	10-49					—			—
	50 & up					—			—
	Totals					1			1
Police:	1-9				1				1
	10-49								
	50 & up				—				—
	Totals				1				1
Fire:	1-9								
	10-49								
	50 & up								
	Totals								0
Totals:				1	1				2
Benefit Program LT-5 (62 or 65)									
General:	1-9		1		1				2
	10-49			2	1				3
	50 & up		1	—	1				2
	Totals		2	2	3				7
Police:	1-9		1						1
	10-49			2	1				3
	50 & up		—	—	—				—
	Totals		1	2	1				4
Fire:	1-9					1			1
	10-49					1			1
	50 & up					—			—
	Totals					2			2
Totals		3	4	4	2				13

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 2 LT-4 benefit programs, 0 are LT-4(62) and 2 are LT-4(65). Of the 13 LT-5 benefit programs, 0 are LT-5(62) and 13 are LT-5(65).

Computed Employer Contributions: Non-Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-6									
General:	1-9	1					1		2
	10-49						2		2
	50 & up	—				$\frac{1}{1}$	$\frac{1}{4}$		$\frac{2}{6}$
	Totals	1				1	4		6
Police:	1-9					1			1
	10-49	1		1			1		3
	50 & up	—		—		—	$\frac{1}{2}$		$\frac{1}{5}$
	Totals	1		1		1	2		5
Fire:	1-9						1		1
	10-49								
	50 & up						—		—
	Totals						1		1
Totals:		2		1		2	7		12
Benefit Program L-7									
General:	1-9	3	1		1	1	4		10
	10-49	2	1	4	3	2	4		16
	50 & up	$\frac{1}{6}$	$\frac{3}{5}$	$\frac{2}{6}$	$\frac{1}{5}$	$\frac{2}{5}$	—		$\frac{9}{35}$
	Totals	6	5	6	5	5	8		35
Police:	1-9	2		3	2	1	2	1	11
	10-49	5	2	2		2	1		12
	50 & up	—	—	—	—	—	—	—	—
	Totals	7	2	5	2	3	3	1	23
Fire:	1-9								
	10-49	2			1				3
	50 & up	—			—				—
	Totals	2			1				3
Totals		15	7	11	8	8	11	1	61

**Dollar contribution rates for groups presently without active members.*

Computed Employer Contributions: Non-Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-8 (62 or 65)									
General:	1-9		1			1	1		3
	10-49					1	1		2
	50 & up		<u>2</u>	<u>3</u>		—	<u>1</u>		<u>6</u>
	Totals		3	3		2	3		11
Police:	1-9			1			1		2
	10-49	1		1					2
	50 & up	—		—	<u>1</u>		—		<u>1</u>
	Totals	1		2	1		1		5
Fire:	1-9								
	10-49			1	1	1			3
	50 & up			—	—	—			—
	Totals			1	1	1			3
Totals:		1	3	6	2	3	4		19
Benefit Program L-9									
General:	1-9	2							2
	10-49					3			3
	50 & up	—				—			—
	Totals	2				3			5
Police:	1-9	1							1
	10-49			1					1
	50 & up	—		—					—
	Totals	1		1					2
Fire:	1-9								
	10-49					1			1
	50 & up					—			—
	Totals					1			1
Totals		3		1		4			8

* Dollar contribution rates for groups presently without active members.
The above totals include both the LT(62) and LT(65) benefit programs. Of the 19 LT-8 benefit programs, 5 are LT-8(62) and 14 are LT-8(65).

Computed Employer Contributions: Non-Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Concluded)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-10(65)									
General:	1-9	1					1		2
	10-49								
	50 & up	---		$\frac{1}{1}$			---		$\frac{1}{3}$
	Totals	1		$\frac{1}{1}$			1		$\frac{1}{3}$
Police:	1-9								
	10-49								
	50 & up			$\frac{1}{1}$					$\frac{1}{1}$
	Totals			$\frac{1}{1}$					$\frac{1}{1}$
Fire:	1-9								
	10-49								
	50 & up			$\frac{1}{1}$					$\frac{1}{1}$
	Totals			$\frac{1}{1}$					$\frac{1}{1}$
Totals:		1		3			1		5
Benefit Program L-11									
General:	1-9								
	10-49								
	50 & up								---
	Totals								0
Police:	1-9								
	10-49								
	50 & up								---
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								---
	Totals								0
Totals:									0

**Dollar contribution rates for groups presently without active members.*

**Computed Employer Contributions: Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002**

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-1									
General:	1-9	13	8	6	1		1	2	31
	10-49	23	3						26
	50 & up	—	—	—	—		—	—	—
	Totals	36	11	6	1		1	2	57
Police:	1-9	16	1	2	2	1		2	24
	10-49	8	1						9
	50 & up	—	—	—	—	—		—	—
	Totals	24	2	2	2	1		2	33
Fire:	1-9	1	1	1				1	4
	10-49								
	50 & up	—	—	—				—	—
	Totals	1	1	1				1	4
Totals:		61	14	9	3	1	1	5	94
Benefit Program L-3									
General:	1-9	2	2	3		1	2	1	11
	10-49	10	1	2	1				14
	50 & up	<u>1</u>	—	—	—	—	—	—	<u>1</u>
	Totals	13	3	5	1	1	2	1	26
Police:	1-9	2						2	4
	10-49	4	1	1					6
	50 & up	—	—	—				—	—
	Totals	6	1	1				2	10
Fire:	1-9	2							2
	10-49								
	50 & up	—							—
	Totals	2							2
Totals		21	4	6	1	1	2	3	38

**Dollar contribution rates for groups presently without active members.*

Computed Employer Contributions: Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-4 (62 or 65)									
General:	1-9								
	10-49								
	50 & up								—
	Totals								0
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:									0
Benefit Program LT-5 (62 or 65)									
General:	1-9	1							1
	10-49								
	50 & up	—							—
	Totals	1							1
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals		1							1

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 1 LT-5 benefit program, 1 is LT-5(62) and 0 are LT-5(65).

Computed Employer Contributions: Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-6									
General:	1-9								
	10-49								
	50 & up		1						1
	Totals		1						1
Police:	1-9								
	10-49	1							1
	50 & up	—							—
	Totals	1							1
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:		1	1						2
Benefit Program L-7									
General:	1-9	2		1			2		5
	10-49	3	1	1	1				6
	50 & up	1	—	—	—		—		1
	Totals	6	1	2	1		2		12
Police:	1-9	4				2			6
	10-49	1							1
	50 & up	—				—			—
	Totals	5				2			7
Fire:	1-9			1					1
	10-49								
	50 & up			—					—
	Totals			1					1
Totals		11	1	3	1	2	2		20

* Dollar contribution rates for groups presently without active members.

Computed Employer Contributions: Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-8 (62 or 65)									
General:	1-9			2					3
	10-49	1							
	50 & up	—		—					—
	Totals	1		2					3
Police:	1-9		2						2
	10-49	1							1
	50 & up	—	—						—
	Totals	1	2						3
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:		2	2	2					6
Benefit Program L-9									
General:	1-9	1		1					2
	10-49	2							2
	50 & up	—		$\frac{1}{2}$					$\frac{1}{2}$
	Totals	3		$\frac{1}{2}$					5
Police:	1-9	1						1	2
	10-49		1						1
	50 & up	—	—					—	—
	Totals	1	1					1	3
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals		4	1	2				1	8

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 6 LT-8 benefit programs, 2 are LT-8(62) and 4 are LT-8(65).

Computed Employer Contributions: Contributory Plans
5 Year Final Average Salary
By Valuation Groups February 28, 2002
(Concluded)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-10(65)									
General:	1-9								
	10-49								
	50 & up								—
	Totals								0
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:									0
Benefit Program L-11									
General:	1-9								
	10-49								
	50 & up								—
	Totals								0
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:									0

* Dollar contribution rates for groups presently without active members.

**Computed Employer Contributions: Non-Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002**

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-1									
General:	1-9	1		2	1		1		5
	10-49	3	2	1	1	1		8	
	50 & up	—	—	—	—	—	—	—	
	Totals	4	2	3	2	1	1	13	
Police:	1-9	3	1	2		1		7	
	10-49				1			1	
	50 & up	—	—	—	—	—		—	
	Totals	3	1	2	1	1		8	
Fire:	1-9		1					1	
	10-49								
	50 & up		—					—	
	Totals		1					1	
Totals:		7	4	5	3	2	1	22	
Benefit Program L-3									
General:	1-9	3					5		8
	10-49	4		1				5	
	50 & up	<u>1</u>	<u>2</u>	—			—	<u>3</u>	
	Totals	8	2	1			5	16	
Police:	1-9	1	2					3	
	10-49	4						4	
	50 & up	—	—					—	
	Totals	5	2					7	
Fire:	1-9	1						1	
	10-49	2						2	
	50 & up	—						—	
	Totals	3						3	
Totals		16	4	1			5	26	

* Dollar contribution rates for groups presently without active members.

Computed Employer Contributions: Non-Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-4 (62 or 65)									
General:	1-9								
	10-49								
	50 & up								—
	Totals								0
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:									0
Benefit Program LT-5 (62 or 65)									
General:	1-9						1		1
	10-49		2	1					3
	50 & up	$\frac{1}{1}$	—	—			—		$\frac{1}{1}$
	Totals	1	2	1			1		5
Police:	1-9	1					1		2
	10-49	3							3
	50 & up	—					—		—
	Totals	4					1		5
Fire:	1-9	1							1
	10-49	1	1						2
	50 & up	—	—						—
	Totals	2	1						3
Totals		7	3	1			2		13

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 13 LT-5 benefit programs, 7 are LT-5(62) and 6 are LT-5(65).

Computed Employer Contributions: Non-Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-6									
General:	1-9		1				4		5
	10-49		1			1			2
	50 & up		—			<u>3</u>	<u>8</u>		<u>11</u>
	Totals		2			4	12		18
Police:	1-9						1		1
	10-49	1			1	1	3		6
	50 & up	—			—	—	<u>3</u>		<u>3</u>
	Totals	1			1	1	7		10
Fire:	1-9								
	10-49						2		2
	50 & up						<u>1</u>		<u>1</u>
	Totals						3		3
Totals:		1	2		1	5	22		31
Benefit Program L-7									
General:	1-9		1	1		3	8	3	16
	10-49	4	6		7	2	1		20
	50 & up	<u>3</u>	<u>7</u>	<u>7</u>	<u>2</u>	<u>2</u>	—	—	<u>21</u>
	Totals	7	14	8	9	7	9	3	57
Police:	1-9	3	1			1		1	6
	10-49	4	2	3	2	3			14
	50 & up	—	<u>2</u>	<u>2</u>	<u>1</u>	—		—	<u>5</u>
	Totals	7	5	5	3	4		1	25
Fire:	1-9					1			1
	10-49	1	1		1		2		5
	50 & up	—	—		—	—	—		—
	Totals	1	1		1	1	2		6
Totals		15	20	13	13	12	11	4	88

* Dollar contribution rates for groups presently without active members.

Computed Employer Contributions: Non-Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-8 (62 or 65)									
General:	1-9	1					1		2
	10-49	1		3	2	2	3		11
	50 & up	<u>1</u>	<u>2</u>	<u>4</u>	<u>3</u>	<u>1</u>	—		<u>11</u>
	Totals	3	2	7	5	3	4		24
Police:	1-9	1				1	3	1	6
	10-49	4	2		1				7
	50 & up	<u>2</u>	<u>1</u>	<u>1</u>	—	—	—	—	<u>4</u>
	Totals	7	3	1	1	1	3	1	17
Fire:	1-9	1		2					3
	10-49	2		1			1		4
	50 & up	—		<u>1</u>	<u>1</u>	<u>1</u>	—		<u>3</u>
	Totals	3		4	1	1	1		10
Totals:		13	5	12	7	5	8	1	51
Benefit Program L-9									
General:	1-9						1		1
	10-49		2	2	1	2			7
	50 & up	<u>1</u>	—	<u>1</u>	<u>1</u>	<u>1</u>	—		<u>4</u>
	Totals	1	2	3	2	3	1		12
Police:	1-9	1		1	3				5
	10-49	2	1	1					4
	50 & up	—	—	—	—	<u>1</u>			<u>1</u>
	Totals	3	1	2	3	1			10
Fire:	1-9		1						1
	10-49								
	50 & up		—						—
	Totals		1						1
Totals		4	4	5	5	4	1		23

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 51 LT-8 benefit programs, 7 are LT-8(62) and 44 are LT-8(65).

Computed Employer Contributions: Non-Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Concluded)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-10(65)									
General:	1-9		1				2		3
	10-49			2	1		1		4
	50 & up		2	—	2	3	—		7
	Totals		3	2	3	3	3		14
Police:	1-9	1							1
	10-49	1	1	3	1	1			7
	50 & up	—	—	—	—	—			—
	Totals	2	1	3	1	1			8
Fire:	1-9	1					1		2
	10-49					2			2
	50 & up	—				—	—		—
	Totals	1				2	1		4
Totals:		3	4	5	4	6	4		26
Benefit Program L-11									
General:	1-9						1		1
	10-49								
	50 & up						—		—
	Totals						1		1
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:							1		1

* Dollar contribution rates for groups presently without active members.

**Computed Employer Contributions: Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002**

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program L-1									
General:	1-9	4	3	2	4			1	14
	10-49		1						1
	50 & up	—	—	—	—			—	—
	Totals	4	4	2	4			1	15
Police:	1-9	1	2						3
	10-49	1							1
	50 & up	—	—						—
	Totals	2	2						4
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:		6	6	2	4			1	19
Benefit Program L-3									
General:	1-9	2	1	1		2		1	7
	10-49	7	1		1				9
	50 & up	<u>1</u>	—	—	—	—		—	<u>1</u>
	Totals	10	2	1	1	2		1	17
Police:	1-9	2		1					3
	10-49	2							2
	50 & up	—		—					—
	Totals	4		1					5
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals		14	2	2	1	2		1	22

* Dollar contribution rates for groups presently without active members.

Computed Employer Contributions: Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-4 (62 or 65)									
General:	1-9								
	10-49								
	50 & up								—
	Totals								0
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:									0
Benefit Program LT-5 (62 or 65)									
General:	1-9	1							1
	10-49		1						1
	50 & up	—	—						—
	Totals	1	1						2
Police:	1-9								
	10-49		1						1
	50 & up		—						—
	Totals		1						1
Fire:	1-9					1	1		2
	10-49								
	50 & up					—	—		—
	Totals					1	1		2
Totals		1	2			1	1		5

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 5 LT-5 benefit program, 0 are LT-5(62) and 5 are LT-5(65).

Computed Employer Contributions: Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							Totals
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	
Benefit Program L-6									
General:	1-9	1				1	1	2	5
	10-49	3	1				1		5
	50 & up	<u>1</u>	—	<u>1</u>		<u>1</u>	<u>1</u>	—	<u>4</u>
	Totals	5	1	1		2	3	2	14
Police:	1-9	3	1						4
	10-49	2	2						4
	50 & up	—	—			<u>1</u>			<u>1</u>
	Totals	5	3			1			9
Fire:	1-9								
	10-49								
	50 & up								
	Totals								0
Totals:		10	4	1		3	3	2	23
Benefit Program L-7									
General:	1-9	4	3		2	2	2		13
	10-49	8	1	3	1				13
	50 & up	<u>5</u>	—	—	—	—	—		<u>5</u>
	Totals	17	4	3	3	2	2		31
Police:	1-9	4		1				1	6
	10-49	4	1						5
	50 & up	—	<u>1</u>	—				—	<u>1</u>
	Totals	8	2	1				1	12
Fire:	1-9							1	1
	10-49								
	50 & up							—	—
	Totals							1	1
Totals		25	6	4	3	2	2	2	44

* Dollar contribution rates for groups presently without active members.

Computed Employer Contributions: Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Continued)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-8 (62 or 65)									
General:	1-9					1			1
	10-49								
	50 & up	<u>2</u>				—			<u>2</u>
	Totals	2				1			3
Police:	1-9								
	10-49	1							1
	50 & up	—							—
	Totals	1							1
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:		3				1			4
Benefit Program L-9									
General:	1-9								
	10-49	2							2
	50 & up	<u>1</u>	<u>1</u>			<u>1</u>			<u>3</u>
	Totals	3	1			1			5
Police:	1-9							1	1
	10-49	2	1						3
	50 & up	—	—					—	—
	Totals	2	1					1	4
Fire:	1-9								
	10-49			1					1
	50 & up			—					—
	Totals			1					1
Totals		5	2	1	1			1	10

* Dollar contribution rates for groups presently without active members.

The above totals include both the LT(62) and LT(65) benefit programs. Of the 4 LT-8 benefit programs, 3 are LT-8(62) and 1 is LT-8(65).

Computed Employer Contributions: Contributory Plans
3 Year Final Average Salary
By Valuation Groups February 28, 2002
(Concluded)

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll							
		Under 5.00%	5.00% -6.99%	7.00% -8.99%	9.00% -10.99	11.00% -12.99	Over 12.99%	Other*	Totals
Benefit Program LT-10(65)									
General:	1-9				1			1	2
	10-49	1							1
	50 & up	—			—			—	—
	Totals	1			1			1	3
Police:	1-9							1	1
	10-49								
	50 & up							—	—
	Totals							1	1
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:		1			1			2	4
Benefit Program L-11									
General:	1-9								
	10-49								
	50 & up								—
	Totals								0
Police:	1-9								
	10-49								
	50 & up								—
	Totals								0
Fire:	1-9								
	10-49								
	50 & up								—
	Totals								0
Totals:									0

* Dollar contribution rates for groups presently without active members.

Section H

Appendix

**SUMMARY OF
ASSUMPTIONS USED FOR LAGERS ACTUARIAL VALUATIONS
Assumptions Adopted by LAGERS Board after Consulting with Actuary**

The actuarial assumptions used in making the valuations are shown in this Appendix of the report.

ECONOMIC ASSUMPTIONS -----

The investment return rate used in making the valuations was 7.5% per year, compounded annually (net after administrative expenses). The real rate of return is the portion of total investment return which is more than the inflation rate. Considering inflation recognition of 4%, the 7.5% investment return rate translates to an assumed real rate of return of 3.5%. Adopted 2001.

Pay increase assumptions for individual active members are shown for sample ages on pages H-4 and H-5. Part of the assumption for each age is for merit and/or seniority increase, and the other 4% recognizes inflation. Adopted 2001.

The active member payroll is assumed to increase 4% annually, which is the portion of the individual pay increase assumptions attributable to inflation. Adopted 1987.

Post-retirement increases are assumed to be 2.88%, compounded annually.

The number of active members per employer is assumed to continue at the present number. Adopted 1967.

NON-ECONOMIC ASSUMPTIONS -----

The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the 1971 Group Annuity Mortality Table projected to 2000, set back 1 year for men and 7 years for women. The disability post-retirement rates were equal to the standard rates set forward 10 years. Related values are shown on page H-3. Adopted 2001.

The probabilities of age and service retirement are shown on page H-3. Adopted 2001.

The probabilities of withdrawal from service and death in service are shown for sample ages on pages H-4 and H-5. It is assumed that all contributory members terminating before age 40 or with less than 10 years service, and a percentage (General: 30%, Police-Fire: 20%) of contributory members terminating after age 40 with 10 or more years service, withdraw their contributions and forfeit any vested employer-financed benefit. The mortality table used to evaluate mortality among active members was the 1983 Group Annuity Mortality Table set back 0 years for men and 0 years for women. Adopted 2001.

An individual entry age actuarial cost method of valuation was used in determining age & service allowance normal costs and the allocation of actuarial present values between service rendered before and after the valuation date. The entry-age actuarial cost method has the following characteristics:

- (i) the annual normal costs for each individual active member, payable from the member's actual date of employment to the member's projected date of retirement are sufficient to accumulate the actuarial present value of the member's benefit at the time of retirement;
- (ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Unfunded accrued liabilities are amortized by level (principal & interest) percent of payroll contributions. Except for amortization of the liabilities associated with the Non-Contributory Refund provision, the minimum amortization period is 15 years. Adopted 1987.

Contribution rates for disability retirement are determined using a modified terminal funding method. Contribution rates are periodically adjusted based on the trend of the balance of the Casualty Reserve Fund (CRF). The funding objective is to have assets in the CRF sufficient to cover the future liabilities for disability retired lives. Adopted 1967.

Future service credit is always assumed to accrue at the rate of 1 year of credit every 12 calendar months. Lower service accrual rates (service breaks or less-than-full-time employment) or higher service accrual rates (addition of military credit or reinstatement of prior service) are reflected as they are reported. Any lower or higher accrual rates may result in small financial gains or losses when reported. Adopted 1967.

The form of benefit payment assumed in the valuation is the Life Option. However, for members with accumulated member contributions, the residual refund available upon an early death after retirement is approximated by assuming pension payments are made for at least 3 years. Adopted 1967.

Employer contribution dollars were assumed to be **paid in equal installments** throughout the employer fiscal year. Adopted 1967.

Present assets (cash & investments) were used based on a smoothed market value (refer to section D). Adopted 1995.

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

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

Single Life Retirement Values
(1971 Group Annuity Mortality Table projected to 2000,
setback 1 year for men and 7 years for women, & i = .075)

Sample Attained Ages	Present Value of \$1.00 Monthly Increasing for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$185.35	\$202.23	29.17	34.67
55	169.49	188.33	24.82	30.06
60	151.82	172.80	20.70	25.67
65	132.52	155.51	16.82	21.50
70	112.72	136.48	13.32	17.57
75	94.11	116.64	10.36	13.99
80	76.88	97.74	7.83	10.91

Percent of Eligible Active Members Retiring within the Next Year

Ages	Without Rule of 80 Eligibility				With Rule of 80 Eligibility			
	General*		Police*	Fire*	General		Police	Fire
	Men	Women			Men	Women		
50			3%	4%	25%	25%	25%	25%
51			3	4	15	15	25	25
52			3	4	15	15	25	25
53			3	4	15	15	25	25
54			3	4	15	15	25	25
55	2%	4%	15	20%	15	15	25	25
56	2	4	10	20	15	15	25	25
57	2	4	10	15	15	15	15	10
58	2	4	10	15	15	15	25	15
59	2	4	10	15	15	15	20	10
60	10	10	10	20	25	30	20	20
61	10	10	10	20	25	20	25	15
62	35	20	35	40	35	25	30	45
63	25	20	30	40	35	20	25	35
64	25	20	35	35	35	35	50	70
65	40	30	100	100	35	50	100	100
66	30	25			35	35		
67	30	20			35	30		
68	20	25			25	25		
69	25	25			35	50		
70	100	100			100	100		

* First 5 years of retirement pattern only apply to early retirement.

GENERAL - MEN
Separations from Active Employment Before Age & Service Retirement
& Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Separating within the Next Year		Pay Increase Assumptions for an Individual Employee		
		Death	Other	Merit & Seniority	Base (Economy)	Increase Next Year
ALL	0		21.00%			
	1		16.00			
	2		12.00			
	3		11.00			
	4		10.00			
25	5 & Over	0.05%	8.40	3.9%	4%	7.9%
30		0.06	7.00	2.9	4	6.9
35		0.09	5.60	2.0	4	6.0
40		0.12	4.40	1.6	4	5.6
45		0.22	3.60	1.2	4	5.2
50		0.39	3.10	1.0	4	5.0
55		0.61	2.30	0.8	4	4.8
60		0.92	1.20	0.5	4	4.5
65	1.56	0.00	0.0	4	4.0	

GENERAL - WOMEN
Separations from Active Employment Before Age & Service Retirement
& Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Separating within the Next Year		Pay Increase Assumptions for an Individual Employee		
		Death	Other	Merit & Seniority	Base (Economy)	Increase Next Year
ALL	0		23.00%			
	1		20.00			
	2		16.00			
	3		14.00			
	4		12.00			
25	5 & Over	0.03%	11.10	3.9%	4%	7.9%
30		0.03	9.60	2.9	4	6.9
35		0.05	8.10	2.0	4	6.0
40		0.07	7.00	1.6	4	5.6
45		0.10	5.70	1.2	4	5.2
50		0.16	4.90	1.0	4	5.0
55		0.25	3.00	0.8	4	4.8
60		0.42	1.40	0.5	4	4.5
65	0.71	0.00	0.0	4	4.0	

POLICE
Separations from Active Employment Before Age & Service Retirement
& Individual Pay Increase Assumptions

Sample Ages	Years of Service	Percent of Active Members Separating within the Next Year		Pay Increase Assumptions for an Individual Employee		
		Death	Other	Merit & Seniority	Base (Economy)	Increase Next Year
ALL	0		20.00%			
	1		18.00			
	2		16.00			
	3		14.00			
	4		12.00			
25	5 & Over	0.05%	11.10	3.9%	4%	7.9%
30		0.06	9.00	2.9	4	6.9
35		0.09	7.00	2.0	4	6.0
40		0.12	5.80	1.6	4	5.6
45		0.22	5.00	1.2	4	5.2
50		0.39	3.50	1.0	4	5.0
55		0.61	1.00	0.8	4	4.8

FIRE
Separations from Active Employment Before Age & Service Retirement
& Individual Pay Increase Assumptions

Sample Ages	Percent of Active Members Separating within the Next Year		Pay Increase Assumptions for an Individual Employee		
	Death	Other	Merit & Seniority	Base (Economy)	Increase Next Year
25	0.05%	6.80	3.9%	4%	7.9%
30	0.06	5.00	2.9	4	6.9
35	0.09	3.60	2.0	4	6.0
40	0.12	2.40	1.6	4	5.6
45	0.22	1.50	1.2	4	5.2
50	0.39	0.80	1.0	4	5.0
55	0.61	0.20	0.8	4	4.8

SUMMARY OF ADDITIONAL ASSUMPTIONS USED FOR 50-YEAR PROJECTIONS

The investment return rate used in the asset projections was 7.5% per year, both before and after retirement.

Future Active Employees are assumed to have characteristics (age, sex, pay rate) that are similar to the characteristics of current employees at the time they were hired. Specifics are shown on page C-4.

Future service credit is always assumed to accrue at the rate of 1 year of credit every 12 calendar months.

The forms of benefit payment assumed in the projection are shown below, based on past experience. For members with accumulated member contributions, the residual refund available upon an early death after retirement is approximated by assuming pension payments are made for at least 3 years.

Benefit Form	Percent Electing
Life Option	60%
75% Joint & Survivor	19
50% Joint & Survivor	12
10 Year Certain	9

90% of active members were assumed to be married.

Post-Retirement Benefit Increases. The projection assumes that a 7.5% annual rate of investment return is earned on the entire portfolio (including the retiree portion of the assets). Based on the projected 7.5% annual return, an annual 2.88% compound post-retirement benefit increase is supportable. Annual increases above 2.88%, up to the maximum 4% average increase specified in statute, are projected to be paid out until the exhaustion of the Reserve for Future Experience in the Benefit Reserve Fund.

Projected benefits for disability retirement are determined using probabilities of disability which were determined empirically to approximate the operation of the terminal funding method currently used to establish contributions. Probabilities of disability are shown below for sample ages:

<u>Sample Ages</u>	<u>General Men</u>	<u>General Women</u>	<u>Police</u>	<u>Fire</u>
25	0.16%	0.02%	0.08%	0.07%
30	0.21	0.02	0.10	0.11
35	0.27	0.03	0.14	0.25
40	0.35	0.06	0.20	0.39
45	0.46	0.12	0.31	0.62
50	0.60	0.25	0.52	0.95

LAGERS Retainer Actuarial Fees 10 Year Comparative Statement

Valuation Date As of	Number of Valuation Groups	Annual Actuarial Fees (nearest \$1)	Consumer Price Index (1967 is 100)	AVERAGE FEE PER GROUP	
				Unadjusted Dollars	1967* Dollars
2-28-93	634	\$143,772	428.7	\$227	\$53
2-28-94	645	147,990	439.3	229	52
2-28-95	655	151,898	452.0	232	51
2-29-96	665	155,981	464.2	235	51
2-28-97	686	159,701	478.2	233	49
2-28-98	711	164,711	484.9	232	48
2-28-99	731	166,991	492.9	228	46
2-29-00	747	169,995	508.7	228	45
2-28-01	777	174,985	526.7	225	43
2-28-02	791	180,971	532.7	229	43

* A goal for LAGERS during the initial design activity in 1966 and 1967 was that the actuarial retainer fee be approximately \$100 annually per valuation group - - - an amount substantially less than the amount the municipality would pay if it arranged independently for an actuarial valuation of comparable quality.

October 4, 2002

Mr. William R. Schwartz
Executive Secretary
Missouri Local Government
Employees Retirement System
1913 Williams Street
Jefferson City, Missouri 65102

Dear Bill:

Please find enclosed 10 copies of the *Compiled Report of the February 28, 2002 valuations* for the participating employers of the Missouri Local Government Employees Retirement System.

Sincerely,

Mita D. Drazilov

MDD:rmg
Enclosures

CC: LAGERS Board Members
Ms. Melissa Benton (KPMG Peat Marwick)

MISSOURI LOCAL GOVERNMENT EMPLOYEES RETIREMENT SYSTEM

**Compiled 34th Annual Actuarial Valuations
As of February 28, 2002**

**50 Year Actuarial Projection
Beginning February 28, 2002**

**GABRIEL, ROEDER, SMITH & COMPANY
ACTUARIES, CONSULTANTS**