IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

Actuarial Valuation Report
as of July 1, 2001

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October 31, 2001

Board of Trustees
Iowa Peace Officers' Retirement, Accident and Disability System
Wallace State Office Building
Des Moines, IA 50319

Dear Members of the Board:

At your request, we have conducted our annual valuation of the Iowa Peace Officers' Retirement, Accident and Disability System as of July 1, 2001. The results of the valuation are contained in the following report.

The plan provisions and actuarial assumptions are the same as those used in last year's valuation.

In preparing our report, we relied, without audit, on the employee census data and financial statements provided by the System.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices that are consistent with the applicable Guides to Professional Conduct of the American Academy of Actuaries.

We hereby further certify that all costs, liabilities, rates of interest and other factors under the Plan have been determined on the basis of actuarial assumptions and methods which are in the aggregate reasonable (taking into account the experience of the Plan and reasonable expectations) and which, in combination, offer our best estimate of anticipated experience under the plan.

Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions.

Respectfully submitted,
MILLIMAN USA, INC.

I, Patrice A. Beckham am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Patrice Beckham

Patrice A. Beckham, F.S.A.
Principal

I, Brent A. Banister am a member of the American Academy of Actuaries and an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Brent A. Banister, A.S.A.
Associate Actuary

ACTUARIAL VALUATION
OF THE
IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

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SECTION I

EXECUTIVE SUMMARY

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SECTION I
EXECUTIVE SUMMARY

Purpose of Report

This report presents the results of the July 1, 2001 actuarial valuation of the Iowa Peace Officers' Retirement, Accident and Disability System (IPORS). The primary purposes of performing the valuation are as follows:

- to determine the normal contribution rate payable by the State under Section 97A.8(1b) of the Code of Iowa.
- to satisfy the reporting requirements under Chapter 97A.8 of the Code of Iowa.
- to disclose asset and liability measures indicating the current funded status of the System as of the valuation date.
- to analyze and report on trends in System contributions, assets, and liabilities over the past several years.
- to provide financial reporting information in accordance with Statements No. 25 and 27 of the Governmental Accounting Standards Board.

The law governing the Peace Officers' Retirement, Accident and Disability System requires the actuary, as the technical advisor to the Board of Trustees, to make "an annual valuation of the assets and liabilities of the funds of the System created by this Chapter." [Chapter 97A, Section 5].

Comments

As the Actuary for the System, Milliman USA, Inc. has completed the actuarial valuation as of July 1, 2001, based upon membership and financial data compiled by the System. The valuation is based on the same benefit provisions and actuarial assumptions as last year. However an asset valuation methodology, as approved by the Board, is first reflected in this valuation. Prior valuations used pure market value for the actuarial value of assets.

The State's normal contribution rate increased from 13.83% last year to 16.77% this year. The most significant factor contributing to this increase was asset performance below the assumed rate of return of 8%, even when partially offset by the newly adopted asset smoothing method. The smoothing method will recognize 25% of the actuarial loss experienced for plan year end 2001 in each of the next three years, along with 25% of any gains/losses for subsequent years. As a result, unless the Fund experiences a return for fiscal year 2002 well above the assumed rate of 8.0%, it is very likely that the State's normal contribution rate will exceed 17%.

Another factor that contributed to the increase in the normal contribution rate was the retirement of 20 active members, compared to an expected number of 10. Because many of these members were between the ages of 55 and 57, their liability as a new retiree is greater than their liability as an active, resulting in higher liabilities than anticipated. Furthermore, these retirements, without replacements in the active membership, also lowered the amount of future compensation over which costs are spread.

System Contributions

The total contribution rate for the Plan Year beginning July 1, 2001 is 26.12% of covered payroll. This is higher than the prior year's rate of 23.18% by 2.94%.

The sources of change are as follows:

	Plan Year Beginning July 1, 2001	Plan Year Beginning July 1, 2000
Prior year total contribution rate	23.18%	12.57%
• change due to benefit improvements	0.00%	11.28%
• change due to asset gains/losses	6.61%	(1.14%)
• change due to other actuarial experience	1.53%	1.19%
• change due to contribution rate in excess of actuarial rate	(0.24%)	(0.72%)
• change due to method changes	(4.96%)	0.00%
Current year total contribution rate	26.12%	23.18%
Members' contribution rate	9.35%	9.35%
State's normal contribution rate	16.77%	13.83%

Liabilities

Three different measurements of liabilities are shown in the following chart.

- ***Actuarial Balance Sheet Liability*** is used in developing the total contribution rate. This liability is calculated based on both future salary projections and service credits to retirement or other separation from service. It represents the present value of all benefits expected to be paid to all current System participants (retired, active and deferred vested) in the future. The difference between the actuarial balance sheet liability and the actuarial value of assets is the present value of future contributions to the System, which determines the total contribution rate.

- ***Projected Benefit Obligation (PBO)*** was a liability measurement used for reporting purposes under GASB No. 5. New GASB Standards replaced this reporting basis, but information on the PBO is provided for comparative purposes. The PBO represents the present value of benefits based on future payroll projections but only reflecting service credits as of June 30, 2001. This measure of the funded status of the plan does not impact the normal contribution rate.

- ***Liability for Accrued Benefits*** is used only for informational purposes. It does not impact the total contribution rate for the System. This liability represents the present value of benefits earned to date, based on service and salary as of June 30, 2001. The liability for accrued benefits is often used as a measure of the funded status since it represents the amount required to pay all accrued benefits if the fund were to liquidate on the measurement date.

Each liability measurement discussed above is used for a different purpose. Therefore, the relative importance of the measurement will depend on the perspective of the person using the information. From an actuarial viewpoint, the actuarial balance sheet liability is the most critical because it, along with the actuarial value of assets, ultimately determines the total contribution rate for the System. The other liability figures are valuable because they provide useful comparisons of assets and liabilities, but the actuarial balance sheet liability is the driving force in determining the contribution rate. Because that determination is the main objective of the actuarial valuation process, it is the most important liability measure from an actuarial perspective.

A comparison of System liabilities between July 1, 2000 and July 1, 2001 are summarized below:

	June 30		
	2001	**2000**	**Change**
Actuarial Balance Sheet Liability	$364,274,742	$337,162,755	8.0%
PBO	263,001,999	240,785,081	9.2%
Liability for Accrued Benefits	216,639,009	196,818,751	10.1%

Assets

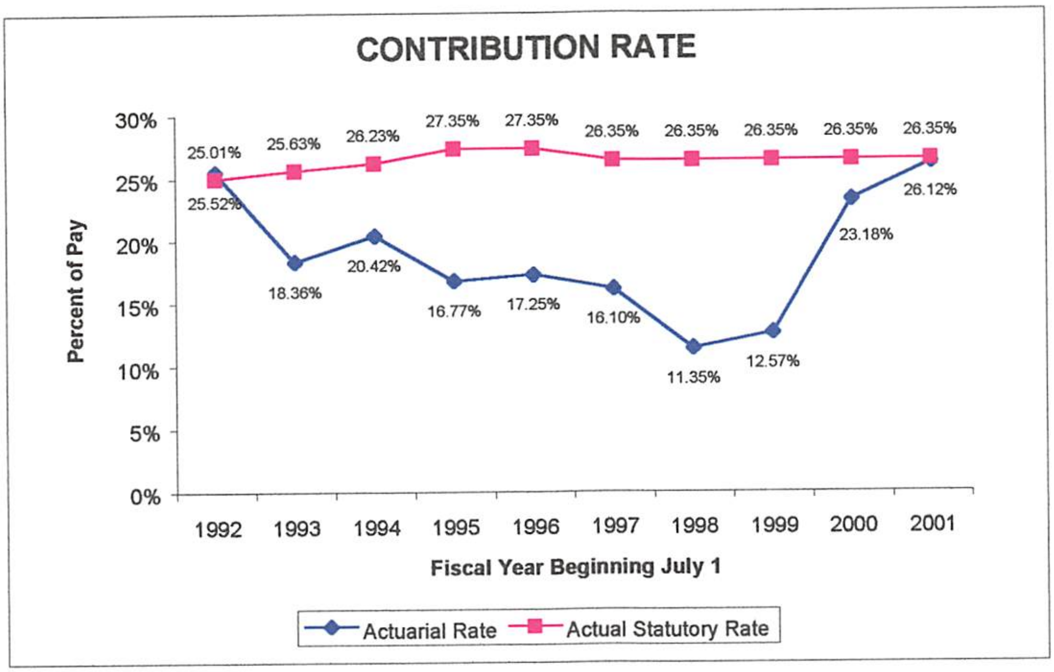
Between July 1, 2000 and July 1, 2001, the actuarial value of assets increased by $9.7 million. During this period an asset smoothing method was also implemented. The changes are identified below:

	Plan Year Ending June 30	
	2001	2000
Actuarial Value of Net Assets at the beginning of the plan year	$239,568,583	$219,462,509
Change in Assets		
• Contributions (including lump sum)	8,182,908	6,822,870
• Benefits and Refunds	(10,330,948)	(8,984,981)
• Administrative Expenses	(74,815)	(68,034)
• Actual Investment Return	(9,943,430)	22,336,219
• Deferred (Gain)/Loss	21,824,597	N/A
Total Changes	9,658,312	20,106,074
Actuarial Value of Net Assets at the end of the plan year	$249,226,895	$239,568,583

The expected investment earnings on the actuarial value of assets for the plan year ending June 30, 2001 were based on an assumed rate of return of 8.0%. However, the dollar weighted rate of return on the market value of assets, net of expenses, was (4.2%). Due to implementation of the asset smoothing method, the rate of return on the actuarial value of assets, was 4.9%. This determination assumes contributions and benefit payments occur evenly throughout the year. The dollar amount of actuarial loss was $7,274,866. More details on the System assets are presented in Section II of this report.

Comparison of Major Valuation Results

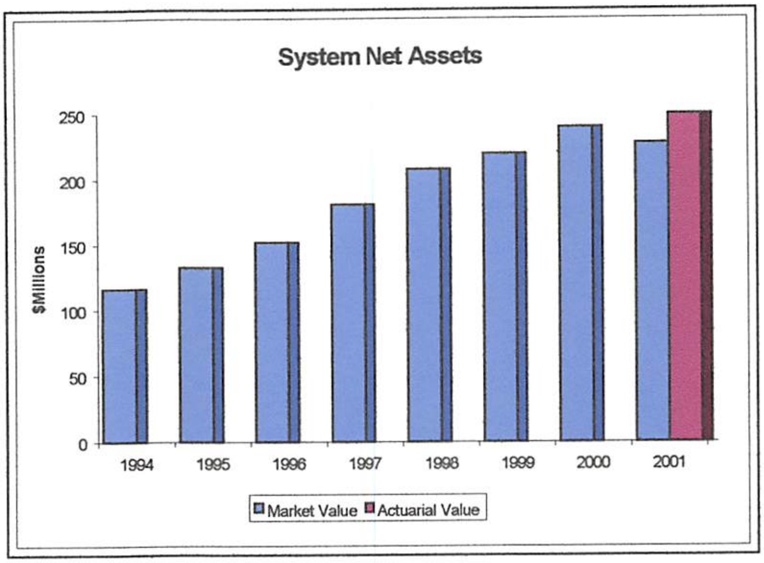
The major findings of the 2001 valuation compared with prior valuation results are summarized and compared in the following charts.



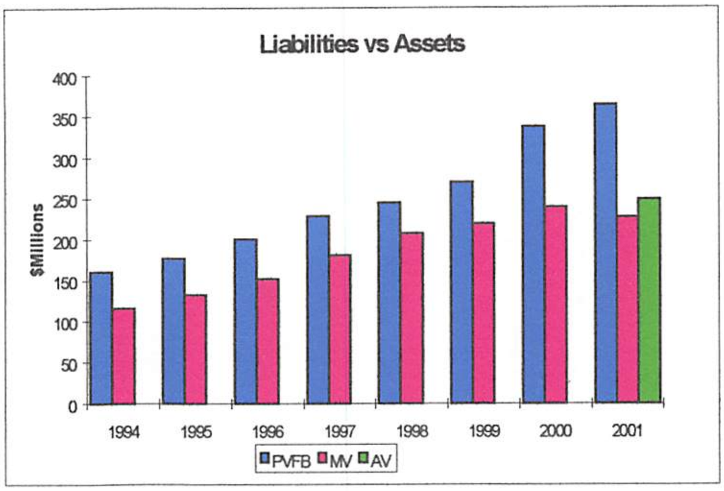
The statutory contribution rate has generally exceeded the actuarial rate in the past decade. The investment return in the next few years will determine whether, and by how much, the actuarial rate exceeds the statutory rate.

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

The System's assets have grown considerably in the past due to investment performance and contributions. An asset smoothing method was implemented with the 2001 valuation.



Projected liabilities and assets have increased during this period. Negative investment experience in FYE2001 resulted in a decrease in the market value of assets and a lower than expected value for the actuarial value of assets.



PVFB = Present Value of Future Benefits (Actuarial Balance Sheet Liability)
MV = Market Value of Assets
AV = Actuarial Value of Assets

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

PRINCIPAL RESULTS

	July 1, 2001	July 1, 2000	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Participants	640	651	(1.7)
- Projected Covered Payroll	$ 31,799,907	$ 30,599,524	3.9
- Average Salary	49,858	47,176	5.1
- Average Attained Age	37.7	37.7	0.0
- Average Service	12.1	12.2	(0.8)
2. Inactive Membership			
- Number of Vested Deferred Members	17	15	13.3
- Number of Retired Members	438	415	5.5
- Average Annual Benefit	$ 25,705	$ 23,494	9.4
ASSETS AND LIABILITIES			
1. Net Assets			
- Market Value	$227,402,298	$239,568,583	(5.1)
- Actuarial Value	$249,226,895	$239,568,583	4.0
2. Projected Liabilities			
- Annuity Savings Fund	$ 0	$ 0	0.0
- Pension Reserve Fund	141,121,091	121,798,979	15.9
- Annuity Reserve Fund	0	0	0.0
- Pension Accumulation Fund	223,153,651	215,363,776	3.6
- Total	$364,274,742	$337,162,755	8.0
SYSTEM CONTRIBUTIONS			
Total Contribution Rate	26.12%	23.18%	12.7
Member's Contribution Rate	9.35%	9.35%	0.0
State's Normal Contribution Rate	16.77%	13.83%	21.3
Appropriated Contribution Rate	17.00%	17.00%	0.0
Excess (Shortfall)	0.23%	3.17%	(92.7)

SECTION II

SYSTEM ASSETS

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SECTION II
SYSTEM ASSETS

The System currently uses the market value of assets as the actuarial value of assets.

The following tables present information regarding the market value of System assets as of July 1, 2001.

Page	Contents
8	Summary of Fund Activity
9	Derivation of Actuarial Value of Assets
10	Historical Comparison (Actuarial and Market)

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SUMMARY OF FUND ACTIVITY
(Market Value)

NET ASSETS ON 7/1/00	**$239,568,583**
CONTRIBUTIONS	
Member Contributions	$ 2,891,537
Employer Contributions	5,291,371
Lump Sum Contributions	0
Total Contributions	**$ 8,182,908**
BENEFIT PAYMENTS	
Pension and annuity payments	$ 10,327,898
Refunds	3,050
Total Benefit Payments	**$ 10,330,948**
Administrative Expense	$ 74,815
Investment Income	$ (9,943,430)
NET ASSETS ON 7/1/01	**$227,402,298**

DERIVATION OF ACTUARIAL VALUE OF ASSETS

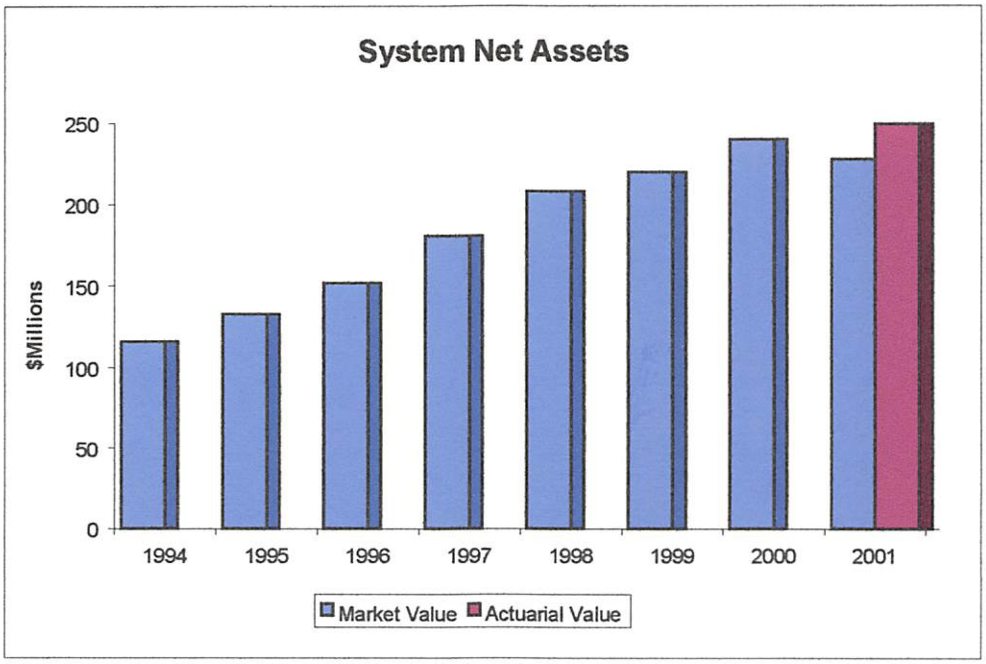
1.	July 1, 2000 Actuarial Value of Assets	$ 239,568,583	
2.	Contributions Received During Year	8,182,908	
3.	Benefit Payments During Year	10,330,948	
4.	Expected Value of Assets at July 1, 2001 $(1) \times 1.08 + [(2) - (3)] \times 1.08^{.5}$	256,501,761	
5.	July 1, 2001 Market Value of Assets	227,402,298	
6.	Gain/(Loss) For Year Ended June 30, 2001 (5) – (4)	(29,099,463)	
7.	July 1, 2001 Market Value of Assets		227,402,298
8.	Recognition of Prior Gains/(Losses) 75% of 2001 Gain/(Loss): .75 x (29,099,463) = Total Adjustment	(21,824,597)	(21,824,597)
9.	July 1, 2001 Actuarial Value of Assets (7) – (8)		249,226,895

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

HISTORICAL COMPARISON

Value As of	Market Value of Net Assets	Estimated Rate of Return (MVA)*	Actuarial Value of Assets**	Estimated Rate of Return (AVA)
July 1, 1993	113,571,943	N/A		
July 1, 1994	115,966,733	N/A		
July 1, 1995	132,708,760	N/A		
July 1, 1996	151,753,761	13.8%		
July 1, 1997	180,551,242	18.9%		
July 1, 1998	207,649,859	15.3%		
July 1, 1999	219,462,509	6.2%		
July 1, 2000	239,568,583	10.2%		
July 1, 2001	227,402,298	-4.2%	249,226,895	4.9%

*Net of Expenses - Information prior to 1996 not readily available.
**A smoothing method for actuarial value of assets was implemented July 1, 2001



SECTION III

SYSTEM LIABILITIES

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SECTION III
SYSTEM LIABILITIES

In this section the values assigned to the liabilities of the System are presented and then compared to System assets.

Explanation of Fund Accounts

The **Annuity Savings Fund** liability represents the accumulated contributions of the individual members and of inactive members who have withdrawn with vested pension rights. Prior amendments have allowed members to withdraw their balance after July 1, 1979.

The **Pension Accumulation Fund** liability represents the estimated present value of future benefits payable by the State to present active members and their beneficiaries and to any inactive members with vested pension rights.

The **Annuity Reserve Fund** liability represents the estimated present value of future annuity benefits payable to members and their beneficiaries now receiving such benefits. The annuity benefits, provided by accumulated contributions of the members, remain constant as they are not adjusted annually under the "half-escalator" provision.

The **Pension Reserve Fund** liability represents the estimated present value of future pension benefits payable to members and their beneficiaries now receiving such benefits. These benefits are assumed to increase according to the "half-escalator" plus fixed dollar amount provision excluding members who terminated with vested benefits whose benefits remain constant.

Chapter 97A.8 states that the actuary shall annually determine the amounts required in the Pension Reserve and Annuity Reserve Funds. If the amount required is less than the amount in the particular reserve fund, the Board of Trustees shall transfer the excess funds from the particular reserve fund to the pension accumulation fund. If the amount required is more than the amount in the particular reserve fund, the respective Board of Trustees shall transfer the additional amount prescribed by the actuary to the particular reserve fund from the pension accumulation fund.

The basic valuation results calculated under the Aggregate Actuarial Cost Method show the required liabilities to be carried in the Pension Reserve Fund and the Annuity Reserve Fund on June 30, 2001. These amounts should be compared with the assets carried in such funds on June 30, 2001 and transfers to or from the Pension Accumulation Fund should then be made to adjust the asset balances so that they equal the required liabilities.

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

The tables in this section present System liabilities as follows:

Page	Contents
13	System Balance Sheet Liabilities
14	Present Value of Accrued Benefits

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SYSTEM BALANCE SHEET LIABILITIES

	JULY 1, 2001	JULY 1, 2000
Actuarial Present Value of Projected Benefits		
1. Annuity Savings Fund	$ 0	$ 0
2. Pension Accumulation Fund	223,153,651	215,363,776
3. Annuity Reserve Fund	0	0
4. Pension Reserve Fund	141,121,091	121,798,979
5. Total	$ 364,274,742	$ 337,162,755

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

PRESENT VALUE OF ACCRUED BENEFITS

		7/1/01	7/1/00
Present Value of Accumulated Benefits			
1.	Vested Benefits		
	Participants currently receiving payments	$ 141,121,091	$ 121,798,979
	Deferred vested members	998,985	1,054,929
	Active members	72,522,927	71,735,665
	Total vested benefits	214,643,003	194,589,569
2.	Nonvested Benefits	$ 1,996,006	$ 2,229,182
3.	Total actuarial present value of accumulated benefits	$ 216,639,009	$ 196,818,751
4.	Market Value of Assets	$ 227,402,298	$ 239,568,583
5.	Unfunded (Surplus) Actuarial Present Value	$ (10,763,289)	$ (42,749,832)
6.	Funded Percentage	105.0%	121.7%

SECTION IV

SYSTEM CONTRIBUTIONS

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SECTION IV
SYSTEM CONTRIBUTIONS

In this section the normal contribution rate required in the upcoming plan year is developed.

The actuarial funding method used to determine System costs is the Aggregate Cost method. A more detailed description of this method can be found in Appendix C.

In the following pages we present information on System contributions as follows:

Page	Contents
16	Actuarial Balance Sheet
17	Normal Contribution Rate

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

ACTUARIAL BALANCE SHEET
as of
July 1, 2001

ASSETS

Actuarial value of assets	$	249,226,895
Present value of future contributions		115,047,847
Total Net Assets	$	364,274,742

LIABILITIES

Present Value of Projected Benefits		
Retired Members and Beneficiaries	$	141,121,091
Active Members		
Retirement		197,298,506
Ordinary death		6,504,008
Accidental death		3,082,113
Accidental disability		7,687,321
Ordinary disability		7,534,330
Termination		48,388
Inactive Vested Members		998,985
Total Liabilities	$	364,274,742

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

NORMAL CONTRIBUTION RATE

		7/1/01	7/1/00
1.	**Actuarial Present Value of Projected Benefits**	$ 364,274,742	$ 337,162,755
2.	**Actuarial Value of Plan Assets**	249,226,895	239,568,583
3.	**Actuarial Present Value of Future Contributions** The excess of the actuarial present value of projected pension benefits over the actuarial value of assets) (the amount used to determine normal cost).	115,047,847	97,594,172
4.	**Actuarial Present Value of Future Valuation Earnings of Active Members**	440,413,266	420,973,256
5.	**Total Normal Contribution Rate** The actuarial present value of future contributions divided by the actuarial present value of future earnings.	26.12%	23.18%
6.	**Member's Contribution Rate**	9.35%	9.35%
7.	**State's Normal Contribution Rate (5) - (6)**	16.77%	13.83%
8.	**Contribution Rate Appropriated**	17.00%	17.00%
9.	**Excess (Shortfall)** The excess of the appropriated contribution rate over the State's normal contribution rate: (8) - (7)	0.23%	3.17%
10.	**Projected Covered Payroll**	$ 31,799,907	$ 30,599,524
11.	**Estimated Amount of State's Contribution**		
	(a) Normal Contribution: (7) x (10)	5,332,844	4,231,914
	(b) Appropriated Contribution: (8) x (10)	5,405,984	5,201,91990
	(c) Excess (Shortfall): (11b) - (11a)	73,140	970,005

SECTION V

PLAN ACCOUNTING INFORMATION

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SECTION V
PLAN ACCOUNTING INFORMATION

Pension Benefit Obligation

One measurement for evaluating the funded status of the Plan is the standardized "pension benefit obligation". This value is known as the actuarial present value of credited projected benefits and is that portion of the present value of all projected pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date under the projected unit credit actuarial cost method. The measure is independent of the actuarial funding method used to determine contributions to the System.

The pension benefit obligation as determined for both this year and last year is summarized below:

	7/1/01	7/1/00
Pension Benefit Obligation		
Former Members (in pay status or deferred)	$ 142,120,076	$ 122,853,908
Current Employees:		
- Estimated accumulated employee contributions including allocated investment earnings	34,938,880	33,223,785
- Employer-financed vested obligation	81,375,393	79,741,744
- Employer-financed nonvested obligation	4,567,650	4,965,644
Total Pension Benefit Obligation	$ 263,001,999	$ 240,785,081
Net Market Value of Assets Available for Benefits	$ 227,402,298	$ 239,568,583
Unfunded Pension Benefit Obligation	$ 35,599,701	$ 1,216,498
Funded Percentage	86.5%	99.5%

The actuarial assumptions used to determine the pension benefit obligation are the same as those used in the respective valuations (see the Actuarial Assumptions section).

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

In an effort to enhance the understandability and usefulness of the pension information that is included in the financial reports of pension plans for state and local governments, the Governmental Accounting Standards Board (GASB) issued Statement No. 25 - Financial Reporting for Defined Benefit Pension Plans and Statement No. 27 - Accounting for Pensions by State and Local Governmental Employers.

GASB Statement No. 25 establishes a financial reporting framework for defined benefit plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress is not required for plans which use the Aggregate Method to determine the annual required contribution. Since the information shown in the schedule is similar to the information formerly required under GASB Statement No. 5, IPORS has elected to prepare the schedule based on the Projected Unit Credit method. The system is also using an actuarial value of assets equal to the fair market value.

- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed. For the Peace Officers' Retirement, Accident and Disability System, the ARC is equal to State's Normal Contribution Rate multiplied by the expected covered payroll for the fiscal year.

GASB Statement No. 27 establishes standards for the measurement, recognition, and display of pension expense and related liabilities. Annual pension cost is measured and disclosed on the accrual basis of accounting. In general, the annual pension cost is equal to the ARC with adjustments for past under-contributions or over-contributions. These adjustments are based on the net pension obligation (NPO) that represents the cumulative difference between the annual pension cost and the actual contributions to the plan. The first adjustment is equal to interest on the NPO which is added to the ARC. The second adjustment is an amortization of the NPO which is deducted from the ARC. Because the system uses the Aggregate method to determine the ARC, the amortization basis is a level percentage of payroll over the average remaining service life of active members.

These statements were adopted by the Peace Officers' Retirement System for the 1996 fiscal year. A transition pension liability (asset) was developed under Statement No. 27 equal to the cumulative difference between the actuarially determined funding requirement and the actual amount contributed for fiscal years 1988 through 1995. As of the adoption date, all outstanding pension liabilities (assets) were adjusted to equal the transition NPO.

Based on the NPO of $(16,235,725) as of June 30, 2000 and the annual required contribution for the 2001 fiscal year of $4,231,914, the annual pension cost for the 2001 fiscal year is $4,199,585. The actual employer contribution was $5,291,371. The effect of the excess contribution is to decrease the net pension obligation by $1,091,786 to $(17,327,511) as of June 30, 2001. As a result, the annual pension cost for the 2002 fiscal year is $5,298,340 based on the annual required contribution of $5,332,844.

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SCHEDULE OF FUNDING PROGRESS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Actuarial Valuation Date	Actuarial Value of Assets** (a)	Actuarial Accrued Liability (AAL)* (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (P/R) (c)	UAAL as a Percentage of Covered P/R [(b-a)/c]
6/30/92	95,351,369	118,572,469	23,221,100	80.42%	19,387,030	119.78%
6/30/93	113,571,943	124,278,348	10,706,405	91.39%	20,292,646	52.76%
6/30/94	115,966,733	130,157,882	14,191,149	89.10%	20,512,937	69.18%
6/30/95	132,708,760	140,803,526	8,094,766	94.25%	23,765,267	34.06%
6/30/96	151,753,761	160,781,808	9,028,047	94.38%	25,272,192	35.72%
6/30/97	180,551,242	166,700,726	(13,850,516)	108.31%	26,277,703	(52.71%)
6/30/98	207,649,859	178,631,341	(29,018,518)	116.24%	26,954,246	(107.66%)
6/30/99	219,462,509	187,312,171	(32,150,338)	117.16%	28,059,369	(114.58%)
6/30/00	239,568,583	240,785,081	1,216,498	99.49%	30,292,856	4.02%
6/30/01	249,226,895	263,001,999	13,775,104	94.76%	30,925,529	44.54%

*The Aggregate method, which does not directly develop an actuarial accrued liability, is used to determine the required contribution. This amount is based on the Projected Unit Credit method.

**Beginning with the 6/30/01 valuation, a smoothing method was used to determine the actuarial (market related) value of assets. Prior to this, market value was used.

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

SCHEDULE OF EMPLOYER CONTRIBUTIONS

In accordance with Statement No. 25 of the Governmental Accounting Standards Board

Fiscal Year Ending	Annual Required Contribution (a)	Total Employer Contribution (b)	Percentage of ARC Contribution (b / a)
6/30/92	4,037,753	3,339,755	82.71%
6/30/93	3,588,539	3,648,617	101.67%
6/30/94	2,177,401	3,670,513	168.57%
6/30/95	2,500,527	4,035,053	161.37%
6/30/96	1,763,383	4,390,688	248.99%
6/30/97	1,996,503	4,597,867	230.30%
6/30/98	1,773,145	4,588,667	258.79%
6/30/99	556,317	4,860,834	873.75%
6/30/00	948,875	3,990,488	420.55%
6/30/01	4,231,914	5,291,371	125.03%

Notes to the Required Schedules:

1. The cost method used to determine the ARC is the Aggregate Cost Method. This method does not identify or separately amortize unfunded actuarial liabilities.

2. The assets are shown at fair market value prior to 6/30/01 and at market related (actuarial) value thereafter.

3. Economic assumptions are as follows:
   - Payroll growth of 4.00%
   - Investment return rate of 8.00%
   - Salary increase rate of 10% the first year, 5% for each of the next 4 years and 5.5% thereafter.
   - Post-retirement benefit increases vary from 2.67% to 3.20%

4. The amortization method is an open period, level percentage of payroll. The average remaining service life of active members is 18 years as of 6/30/01.

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

Development of the Net Pension Obligation

In Accordance with Statement No. 27 of the Governmental Accounting Standards Board

Fiscal Year:	1993*	1994*	1995*	1996	1997
Assumptions and Method:					
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%
Inflation Rate	4.00%	4.00%	4.00%	4.00%	4.00%
Amortization Period (years)	15	15	15	15	14
Cost Method	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate
Annual Pension Cost:					
Annual Required Contribution (ARC)	$3,588,539	$2,177,401	$2,500,527	$1,763,383	$1,996,503
Interest on NPO	163,370	156,942	35,934	(87,183)	(296,503)
Adjustment to ARC	(183,644)	(176,418)	(40,394)	98,004	347,316
Annual Pension Cost	$3,568,265	2,159,925	$2,496,067	$1,774,204	$2,047,316
Contribution for the Year:	$3,648,617	$3,670,513	$4,035,053	$4,390,688	$4,597,867
Net Pension Obligation (NPO):					
NPO at beginning of year	$2,042,121	$1,961,769	$ 449,181	$(1,089,005)	$(3,706,289)
Annual Pension Cost for year	3,568,265	2,157,925	2,496,067	1,774,204	2,047,316
Contributions for year	(3,648,617)	(3,670,513)	(4,035,053)	(4,390,688)	(4,597,867)
NPO at end of year	$1,961,769	$449,181	$(1,089,805)	$(3,706,289)	$(6,256,840)

Fiscal Year:	1998	1999	2000	2001	2002
Assumptions and Method:					
Interest Rate	8.00%	8.00%	8.00%	8.00%	8.00%
Inflation Rate	4.00%	4.00%	4.00%	4.00%	4.00%
Amortization Period (years)	14	14	18	18	18
Cost Method	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate
Annual Pension Cost:					
Annual Required Contribution (ARC)	$1,773,145	$556,317	$948,875	$4,231,914	$5,332,844
Interest on NPO	(500,547)	(718,926)	(1,053,431)	(1,298,858)	(1,386,201)
Adjustment to ARC	586,328	842,132	1,027,211	1,266,529	1,351,697
Annual Pension Cost	$1,858,926	679,523	$922,655	$4,199,585	$5,298,340
Contribution for the Year:	4,588,667	4,860,834	3,990,488	5,291,371	**
Net Pension Obligation (NPO):					
NPO at beginning of year	$(6,256,840)	$ (8,986,581))	$(13,167,892)	$(16,235,725)	
Annual Pension Cost for year	1,858,926	679,523	922,655	4,199,585	
Contributions for year	(4,588,667)	(4,860,834)	(3,990,488)	(5,291,371)	**
NPO at end of year	$(8,986,581)	$(13,167,892)	(16,235,725)	(17,327,511)	

* As calculated by the System.
** Will not be determined until the end of Fiscal Year 2002.

APPENDIX A

SYSTEM MEMBERSHIP INFORMATION

Reconciliation of Member Status
From July 1, 2000 to July 1, 2001

	Active Members	Members & Beneficiaries Receiving Benefits	Former Members with Deferred Benefits	Children Receiving Benefits	Total
Members as of July 1, 2000	651	404	15	11	1,081
Began Receiving Benefits	(25)	32	(2)	0	6
Terminated Without Further Benefit Eligibility	(1)	0	0	0	(1)
Terminated With Benefit Eligibility	(4)	0	+4	0	0
Returned to Active Status	0	0	-1	0	0
Deceased	(2)	(8)	0	0	(10)
Benefits Ended	21	0	0	0	21
Newly Hired	0	0	0	(2)	(2)
Members as of July 1, 2001	640	429	17	9	1,095

AGE AND SERVICE DISTRIBUTION AS OF JULY 1, 2001 FOR ACTIVE PARTICIPANTS

Males and Females

Years of Service

	1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		Total	
Age	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary	No.	Avg. Salary
Under 25	15	35,805	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	15	35,805
25-29	96	40,273	29	44,823	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	125	41,328
30-34	36	40,454	92	48,220	8	51,241	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	136	46,342
35-39	7	41,531	41	48,774	61	51,305	11	54,094	0	NA	0	NA	0	NA	0	NA	0	NA	120	50,126
40-44	0	NA	7	48,505	24	53,134	52	55,798	2	52,761	0	NA	0	NA	0	NA	0	NA	85	54,374
45-49	0	NA	2	55,911	9	51,202	11	52,387	30	58,231	8	67,997	0	NA	0	NA	0	NA	60	57,330
50-54	0	NA	0	NA	2	67,407	2	57,755	22	56,019	45	59,957	5	58,029	0	NA	0	NA	76	58,828
55-59	0	NA	0	NA	0	NA	0	NA	4	65,813	7	58,847	8	55,207	0	NA	0	NA	19	58,781
60-64	0	NA	0	NA	0	NA	0	NA	2	58,553	1	71,241	0	NA	1	50,504	0	NA	4	59,713
65-69	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
70 & over	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
Totals	154	39,937	171	47,878	104	52,023	76	55,109	60	57,754	61	61,069	13	56,293	1	50,504	0	NA	640	49,859

ANALYSIS OF RETIREES AND BENEFICIARIES

as of July 1, 2001

Males and Females

	Number of Participants							
Age	Service Retirement	Accidental Disability	Ordinary Disability	Vested Retirement	Child Beneficiary	Contingent Beneficiary	Deferred Vested	Total
Under 40	0	1	0	0	9	0	3	13
40 to 44	0	4	0	0	0	1	3	8
45 to 49	0	1	0	0	0	0	4	5
50 to 54	0	4	1	0	0	3	1	9
55 to 59	0	12	4	0	0	3	4	23
60 to 64	53	16	3	4	0	6	2	84
65 to 69	57	21	1	8	0	8	0	95
70 to 74	50	11	2	0	0	8	0	71
75 to 79	43	7	1	1	0	15	0	67
80 to 84	33	1	1	0	0	11	0	46
85 to 89	5	1	0	0	0	7	0	13
90 to 94	3	0	0	0	0	12	0	15
95 to 99	0	0	0	0	0	6	0	6
100 & over	0	0	0	0	0	0	0	0
Totals	244	79	13	13	9	80	17	455

ANALYSIS OF RETIREES AND BENEFICIARIES

as of July 1, 2001

Males and Females

Average Annual Benefits of Participants

Age	Service Retirement	Accidental Disability	Ordinary Disability	Vested Retirement	Child Beneficiary	Contingent Beneficiary	Deferred Vested
Under 40	NA	31,584	NA	NA	3,900	NA	5,697
40 to 44	NA	27,111	NA	NA	NA	16,004	10,776
45 to 49	NA	28,364	NA	NA	NA	NA	8,844
50 to 54	NA	29,222	21,990	NA	NA	22,310	18,068
55 to 59	NA	32,890	31,906	NA	NA	22,501	10,154
60 to 64	41,809	33,120	29,426	10,030	NA	17,723	10,526
65 to 69	32,560	29,495	26,609	11,544	NA	13,122	NA
70 to 74	29,587	26,403	19,165	NA	NA	14,542	NA
75 to 79	24,565	27,849	18,204	5,616	NA	13,955	NA
80 to 84	21,587	21,801	16,861	NA	NA	13,872	NA
85 to 89	21,098	20,150	NA	NA	NA	13,127	NA
90 to 94	21,812	NA	NA	NA	NA	13,683	NA
95 to 99	NA	NA	NA	NA	NA	12,819	NA
100 & over	NA	NA	NA	NA	NA	NA	NA
Totals	30,700	29,830	25,992	10,622	3,900	14,663	9,678

APPENDIX B

SUMMARY OF PLAN PROVISIONS

Chapter 97A of the Iowa code sets out the benefit provisions of the Iowa Peace Officers' Retirement, Accident and Disability System, which are briefly summarized as follows:

Retirement Benefit

Eligibility

Age 55 with 22 years of service.

Monthly Annuity

The sum of (1) and (2):

(1) a. For retirement prior to July 1, 1990, 50% of average final compensation at retirement. Average final compensation equals average of highest three years of compensation.

b. For retirement after June 30, 1990 and before July 1, 1992, 54% of average final compensation at retirement.

c. For retirement after June 30, 1992 and before July 1, 1993, 56% of average final compensation at retirement.

d. For retirement after June 30, 1993 and before July 1, 1994, 58% of average final compensation at retirement.

e. For retirement after June 30, 1994, and before July 1, 2000, 60% of average final compensation at retirement.

f. For retirement after July 1, 2000, 60.5% of average final compensation at retirement.

(2) For members who do not withdraw member contributions:

a. For retirement after June 30, 1990 and before July 1, 1991, 0.3% of average final compensation for each year of service over 22 years (up to 8 years). Service after age 55 is excluded.

b. For retirement after June 30, 1991 and before October 16, 1992, 0.6% of average final compensation for each year of service over 22 years (up to 8 years). Service after age 55 is excluded.

c. For retirement after October 15, 1992 and before July 1, 1996, 0.6% of average final compensation for each year of service over 22 years (up to 8 years).

d. For retirement after June 30, 1996, 1.5% of average final compensation for each year of service over 22 years (up to 8 years).

e. For retirement after June 30, 1998, 1.5% of average final compensation for each year of service over 22 years (up to 10 years).

f. For retirement after June 30, 2000, 2.75% of average final compensation for each year of service over 22 years (up to 10 years).

Early Retirement Benefit

Eligibility

Effective July 1, 1996, age 50 (but not age 55) with 22 years of service.

Monthly Annuity

The benefit provided as a retirement benefit actuarially reduced for commencement prior to age 55.

Deferred Vested Benefit

Eligibility

Four years of service.

Monthly Annuity

At age 55. The benefit provided as a retirement benefit at termination times a service ratio. The service ratio equals service at termination divided by 22 (not greater than 1.0).

Ordinary Disability Benefit

Eligibility

None.

Benefit

(1) If service at disability is greater than or equal to 5 years, 50% of average final compensation at disability.

(2) If service at disability is greater than or equal to 22 years, the greater of (1) or the benefit amount calculated under a service retirement. Effective July 1, 1998, the service requirement does not apply.

(3) If service at disability is less than 5 years, 25% of average final compensation at disability.

Accidental Disability Benefit

Eligibility

None.

Benefit

(1) For retirement prior to July 1, 1990, 66-2/3% of average final compensation at disability.

(2) For retirement after June 30, 1990, 60% of average final compensation at disability. If the service amount at disability is greater than or equal to 22 years, the greater of 60% of average final compensation at disability or the benefit amount calculated under a service retirement.

Ordinary Death Benefit

Eligibility

For member in service: None.
For member not in service: Four years of service.

Benefit

(1) A lump sum equal to 50% of compensation during the last year of employment, or

(2) A pension based on 40% of average final compensation but not less than 25% of compensation paid to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol. For members not in service, benefit is multiplied by the ratio of service at termination to 22 years (not greater than 1.0).

(3) Additional benefit for members in service of 6% of compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol for each child.

Payment Date

(1) For members in service: Immediately upon death of member.

(2) For member not in service: Payable when member would have been age 55. If there are children of the member, payable commencing at the member's death until children reach age 18 or 22. Pension resumes when member would have been age 55.

Accidental Death Benefit

Eligibility

In actual performance of duty.

Benefit

(1) 50% of average final compensation payable to surviving spouse, children or dependent parents.

(2) If there is not surviving spouse, children or dependent parents, or if accidental death occurs while not in the actual performance of duty, an Ordinary Death Benefit is payable.

(3) Additional benefit for members in service of 6% of compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol, for each child.

(4) If the death meets specified criteria, a lump sum of $100,000 payable to surviving spouse, children, dependent parents, or estate.

Death After Retirement

Benefit

(1) 50% of retirement allowance of retired member but not less than 25% of compensation paid to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol.

(2) Additional benefit of 6% of compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol, for each child.

Adjustments to Pensions

Each July 1 the following adjustments are made: Monthly earnable compensation payable to an active member, of the same rank and position in the salary scale as was held by the retired or deceased member at the time of the member's retirement or death, for July of the current year less that of the preceding July, times the following percentages:

(1) 40% for members receiving a service retirement allowance and for beneficiaries receiving an accidental death benefit.

(2) 40% for members with five or more years of membership who are receiving an ordinary disability benefit.

(3) 40% for member receiving an accidental disability benefit.

(4) 24% for members with less than five years of membership who are receiving an ordinary disability benefit and for beneficiaries receiving an ordinary death benefit.

(5) 50% of the amount which would have been added to the benefit of the retired member, for surviving spouses, but not less than 25% of the monthly earnable compensation paid to an active member having the rank of senior patrol officer.

Additionally, an amount will be added to a member or beneficiary monthly pension as follows:

(1) \$15 where the member's retirement date was less than five years prior to the effective date of the adjustment.

(2) \$20 where the member's retirement date was less than ten years prior to the effective date of the adjustment.

(3) \$25 where the member's retirement date was less than fifteen years prior to the effective date of the adjustment.

(4) $30 where the member's retirement date was less than twenty years prior to the effective date of the adjustment.

(5) $35 where the member's retirement date was at least twenty years prior to the effective date of the adjustment.

Surviving children's pensions are adjusted each July to equal 6% of monthly earnable compensation payable to an active member having the rank of senior patrol officer of the Iowa Highway Safety Patrol.

Member Contributions

(1) The following percentage of earnable compensation will be paid as member contributions:

Period	Member Contribution Rate
January 1, 1995 - June 30, 1995	8.35%
July 1, 1995 forward	9.35%

(2) Beginning July 1, 1996 and each fiscal year thereafter, the system will increase the member contribution rate as necessary to cover the increased cost to the system resulting from statutory changes enacted by any session of the general assembly after January 1, 1995 if such increase cannot be absorbed within the contribution rate otherwise established, subject to a maximum member contribution rate of 11.3%. After this maximum rate is reached, 60% of any additional costs due to statutory changes will be absorbed by the employer and 40% will be paid by the members.

Withdrawal of Member Contributions

Effective July 1, 1990, members who terminate service, other than by death or disability, can elect to withdraw their accumulated contributions with interest in lieu of any benefits to which the member may be entitled from the System.

Transfers With Statewide Fire and Police Retirement System

Beginning July 1, 1996, vested members of an eligible retirement system who terminate employment and, within 60 days, commence covered employment under another eligible retirement system, may elect to transfer the average accrued benefit earned from the former system to the current system. Once such transfer is completed, service under the former system shall be treated as membership service under the current system.

APPENDIX C

ACTUARIAL METHOD AND ASSUMPTIONS

Actuarial Cost Method

The Aggregate Actuarial Cost Method has been used in this valuation. Under this method, the normal cost (the portion of the total cost of pension benefits under this plan allocated to the current year under this actuarial cost method) is determined by multiplying the normal cost accrual rate for the current year by the total valuation earnings for active participants under the assumed retirement age on the current valuation date.

An actuarial accrued liability, as such, is not determined under the Aggregate Actuarial Cost Method; all past and future costs are funded over the future. The normal cost accrual rate for the current year is:

1. the actuarial present value of projected pension benefits for all participants determined using the assumptions shown below for normal cost, minus the actuarial value of assets (as reported by the System), both as of the current valuation date, divided by

2. the actuarial present value of the expected future valuation earnings for all active participants from the current valuation date to the assumed retirement age.

Actuarial gains and losses are reflected in this accrual rate and are spread over the current and future years' normal costs. Experience gains will reduce and experience losses will increase future normal cost accrual rates.

Actuarial Assumptions

Active Members:

1.	Ordinary death rate	1983 Group Annuity Mortality Table.
2.	Accidental death rate	8.5 deaths per 10,000 exposed for one year.
3.	Ordinary disability rate	1970-71 Industry Experience on Male Lives (Occupational Group II).
4.	Accidental disability rate	1970-71 Industry Experience on Male Lives (Occupational Group II) increased by 50% for age 35 and younger, grading up 1% per age to 69% for age 54.
5.	Withdrawal rate	5% for first year of employment, grading down 1% a year to 0% in sixth and following years.

6. Retirement age

Age	Probability of Retirement
55	45%
56	30%
57-58	20%
59-60	25%
61	33%
62	100%

7. Salary scale — Annual increases: 10% the first year, 5% for each of the next 4 years, and 5.5% thereafter.

8. Post-retirement adjustments — Same as for retired members.

Retired Members and Other Beneficiaries:

1. Mortality rate — Service retirements and female beneficiaries: 1983 Group Annuity Mortality (GAM) Tables - Male and Female.

2. Mortality rate — Disability retirements: 1983 GAM Tables - Male and Female rated up 5 years in age.

3. Annual readjustment of pensions — For retirements prior to July 1, 1990: 3.20% increase each year for retired members and beneficiaries; 2.67% for retired members receiving accidental disability; 3.20% for retired members receiving ordinary disability.

   For retirements July 1, 1990 through June 30, 1992: 2.85% increase each year for retired members and beneficiaries; 2.96% for retired members receiving accidental disability; 3.20% for retired members receiving ordinary disability.

   For retirements July 1, 1992 through June 30, 1994: 2.76% increase each year for retired members and beneficiaries; 2.96% for retired members receiving accidental disability; 3.20% for retired members receiving ordinary disability.

For retirements after July 1, 1994: 2.67% increase each year for retired members and beneficiaries; 2.96% for retired members receiving accidental disability; 3.20% for retired members receiving ordinary disability.

Dependency Ratios:

1. Ordinary death benefit	Alternate benefits payable to widow and minor children in 90% of cases.
2. Pension to spouse and children of deceased pensioned member	In 90% of cases.

Interest Rate:	8% per year.
Inflation:	3.5% per year.
Wage Growth:	4.0% per year.