IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

Actuarial Valuation Report
as of July 1, 1997

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

TABLE OF CONTENTS

APPENDICES

SECTION I

EXECUTIVE SUMMARY

SECTION I

EXECUTIVE SUMMARY

Purpose of Report

This report presents the results of the July 1, 1997 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].

As the Actuary for the System, Milliman & Robertson, Inc. has completed the actuarial valuation as of July 1, 1997, based upon membership and financial data compiled by the System. The valuation is based on the same actuarial assumptions and methods used in the prior valuation, with one exception. In the prior valuation, IRC Section 415 limits were applied and were not projected. The current year's valuation results reflect indexation of the 415 limits for retirement and termination benefits and non-applicability of the limits for preretirement death and disability benefits. The impact of this change, by itself, was to increase the contribution rate.

The overall experience for the last plan year was favorable, reflected by a net decrease in the total contribution rate of 1.15%, even with the change in treatment of the 415 limit.

System Contributions

The total contribution rate for the Plan Year beginning July 1, 1997 is 16.10% of covered payroll. This is lower than the prior year's rate of 17.25% by 1.15%.

The sources of change are as follows:

	Plan Year Beginning	
	July 1, 1997	July 1, 1996
Prior year total contribution rate	17.25%	16.77%
• change due to benefit improvements	0.00%	2.78%
• change due to asset gains	(5.49%)	(2.71%)
• change due to contribution rate in excess of actuarial rate	(0.60%)	(0.89%)
• change due to other actuarial experience	(0.34%)	1.30%
• change in reflection of IRC Section 415 limits	5.28%	0.00%
• change due to change in actuarial assumptions	0.00%	0.00%
Current year total contribution rate	16.10%	17.25%
Member's contribution rate	9.35%	9.35%
State's normal contribution rate	6.75%	7.90%

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, 1997. 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, 1997. 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, 1996 and July 1, 1997 are summarized below:

	June 30		
	1997	**1996**	**Change**
Actuarial Balance Sheet Liability	$229,004,133	$200,595,105	6.2%
PBO	166,700,726	160,781,808	5.2%
Liability for Accrued Benefits	145,690,156	141,117,478	5.8%

Assets

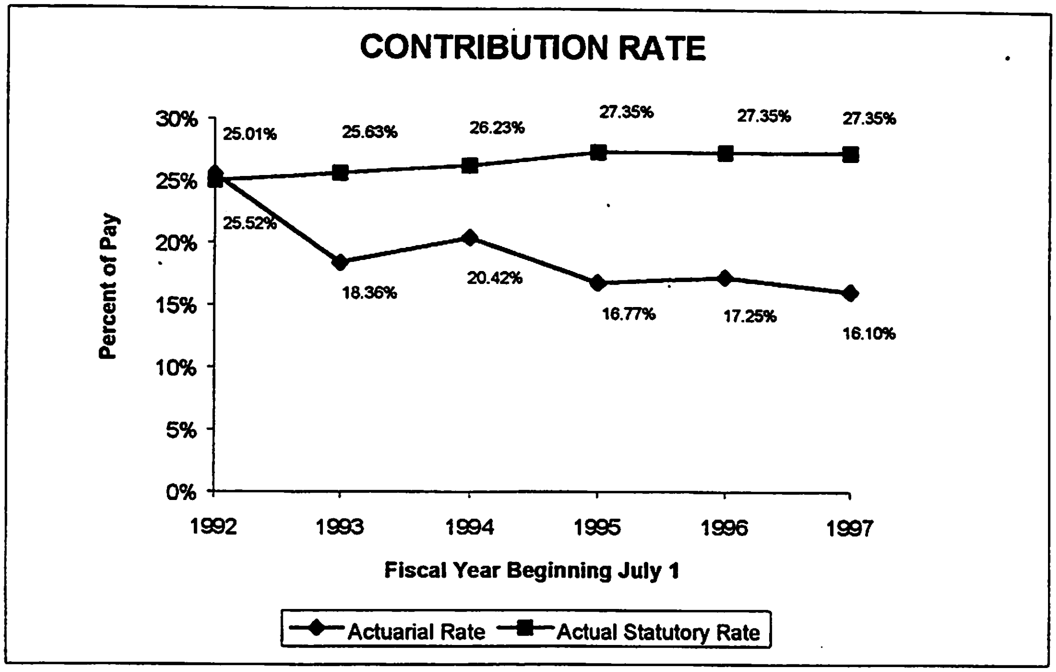
Between July 1, 1996 and July 1, 1997, the actuarial (market) value of assets increased by $28.8 million. This change was attributable to the following:

	Plan Year Ending June 30	
	1997	1996
Actuarial Value of Net Assets at the beginning of the plan year	$151,753,761	$132,708,760
Change in Assets		
• Contributions (including lump sum)	7,058,962	6,989,636
• Benefits, Refunds	(6,925,876)	(6,267,017)
• Expenses	(48,113)	(130,885)
• Investment Return	28,712,508	18,453,267
Total Changes	28,797,481	19,045,001
Actuarial Value of Net Assets at the end of the plan year	$180,551,242	$151,753,761

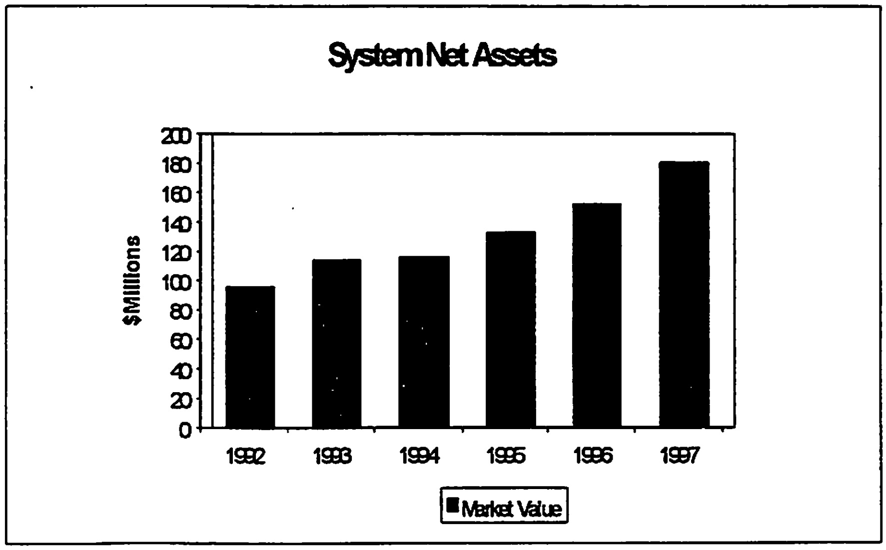
The expected investment earnings on the actuarial value of assets for the plan year ending June 30, 1997 were based on an assumed rate of return of 8.0%. However, the dollar weighted rate of return on the actuarial value of assets, net of expenses, was 18.9%. This determination assumes contributions and benefit payments occur evenly throughout the year. The dollar amount of actuarial gain was $16,518,771. More details on the System assets are presented in Section II of this report.

Comparison of Major Valuation Results

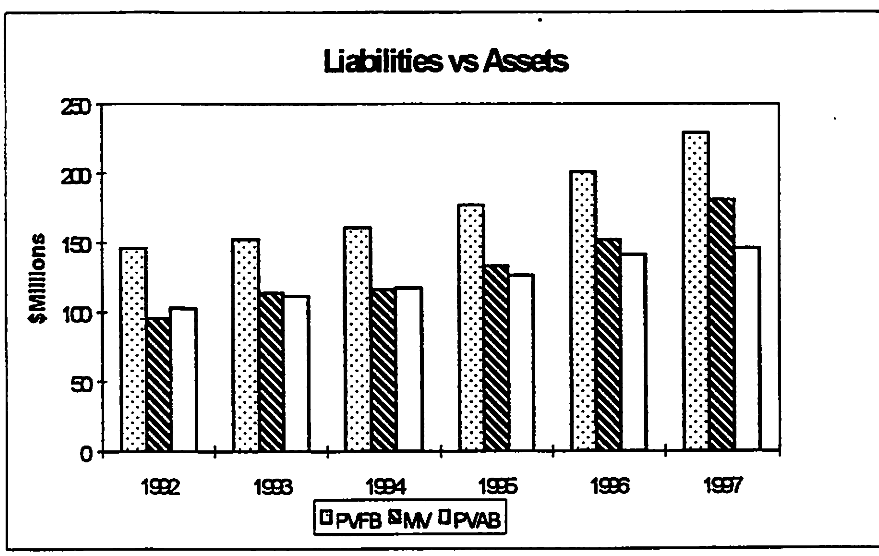
The major findings of the 1997 valuation compared with prior valuation results are summarized and compared in the following charts.



The System's assets have grown considerably in recent years due to investment performance.



Projected and accrued liabilities have increased steadily each year. The market value of assets as a percent of the present value of accrued liabilities has grown significantly.



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

IOWA PEACE OFFICERS'
RETIREMENT, ACCIDENT AND DISABILITY SYSTEM
PRINCIPAL RESULTS

	July 1, 1997	July 1, 1996	% Chg
SYSTEM MEMBERSHIP			
1. Active Membership			
- Number of Participants	626	612	2.3
- Projected Covered Payroll	26,277,703	25,272,192	4.0
- Average Salary	42,659	41,294	3.3
- Average Attained Age	37.9	38.1	(0.5)
- Average Service	12.1	12.4	(2.4)
2. Inactive Membership			
- Number of Vested Deferred Members	16	16	0.0
- Number of Retired Members	366	353	3.7
- Average Annual Benefit	19,715	19,106	3.2
ASSETS AND LIABILITIES			
1. Net Assets			
- Market Value	180,551,242	151,753,761	19.0
- Actuarial Value	180,551,242	151,753,761	19.0
2. Projected Liabilities			
- Annuity Savings Fund	0	0	0
- Pension Reserve Fund	89,549,407	82,664,129	8.3
- Annuity Reserve Fund	0	0	0
- Pension Accumulation Fund	139,454,726	117,930,976	18.3
- Total	229,004,133	200,595,105	14.2
SYSTEM CONTRIBUTIONS			
Total Contribution Rate	16.10%	17.25%	(6.6%)
Member's Contribution Rate	9.35%	9.35%	0.00%
State's Normal Contribution Rate	6.75%	7.90%	(14.56%)
Appropriated Contribution Rate	18.00%	18.00%	0.00%
Excess (Shortfall)	11.25%	10.10%	11.39%

SECTION II

SYSTEM ASSETS

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, 1997.

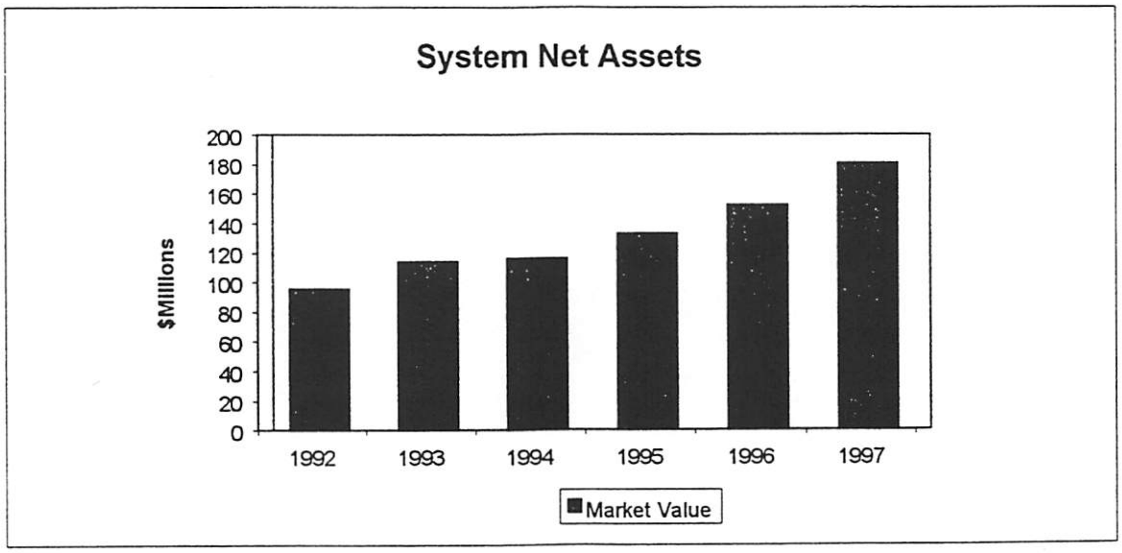
SUMMARY OF FUND ACTIVITY
(Market Value)

NET ASSETS ON 7/1/96	**$151,753,761**
CONTRIBUTIONS	
Member Contributions	$ 2,461,095
Employer Contributions	4,597,867
Lump Sum Contributions	0
Total Contributions	**$ 7,058,962**
BENEFIT PAYMENTS	
Pension and annuity payments	$ 6,921,294
Refunds	4,582
Total Benefit Payments	**$ 6,925,876**
Administrative Expense	$ 48,113
Investment Income	$ 28,712,508
NET ASSETS ON 7/1/97	**$ 180,551,242**

HISTORICAL COMPARISON

Value As of	Market Value of Net Assets	Estimated Rate of Return*
July 1, 1992	95,351,357	N/A
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%

*Net of Expenses - Information prior to 1996 not readily available.



SECTION III

SYSTEM LIABILITIES

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" 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, 1997. These amounts should be compared with the assets carried in such funds on June 30, 1997 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.

The tables in this section present System liabilities as follows:

SYSTEM BALANCE SHEET LIABILITIES

		JULY 1, 1997	JULY 1, 1996
Actuarial Present Value of Projected Benefits			
1.	Annuity Savings Fund	$ 0	$ 0
2.	Pension Accumulation Fund	139,454,726	117,930,976
3.	Annuity Reserve Fund	0	0
4.	Pension Reserve Fund	89,549,407	82,664,129
5.	Total	$ 229,004,133	$ 200,595,105

PRESENT VALUE OF ACCRUED BENEFITS

Present Value of Accumulated Benefits		7/1/96	7/1/97
1.	Vested Benefits		
	Participants currently receiving payments	$ 82,664,129	$ 89,549,407
	Deferred vested members	1,023,578	1,210,515
	Active members	41,825,925	53,734,342
	Total vested benefits	125,513,632	144,494,264
2.	Nonvested Benefits	$ 15,603,846	$ 1,195,892
3.	Total actuarial present value of accumulated benefits	$ 141,117,478	$ 145,690,156
4.	Market Value of Assets	$ 151,753,761	$ 180,551,242
5.	Unfunded (Surplus) Actuarial Present Value	$ (10,636,283)	$ (34,861,086)
6.	Funded Percentage	107.5%	123.9%

SECTION IV

SYSTEM CONTRIBUTIONS

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:

ACTUARIAL BALANCE SHEET
July 1, 1997

ASSETS

Market value of assets	$	180,551,242
Present value of future contributions		48,452,891
Total Net Assets	$	229,004,133

LIABILITIES

Present Value of Projected Benefits		
Retired Members and Beneficiaries	$	89,549,407
Active Members		
Retirement		110,703,168
Ordinary death benefits		6,065,646
Accidental death		1,829,316
Accidental disability		4,565,859
Ordinary disability		5,254,881
Termination benefits		9,825,341
Inactive Members		1,210,515
Total Liabilities	$	229,004,133

NORMAL CONTRIBUTION RATE

		7/1/96	7/1/97
1.	**Actuarial Present Value of Projected Benefits**	$ 200,595,105	$ 229,004,133
2.	**Market Value of Plan Assets**	151,753,761	180,551,242
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.	48,841,344	48,452,891
4.	**Actuarial Present Value of Future Valuation Earnings of Active Members**	283,192,900	300,915,960
5.	**Total Normal Contribution Rate** The actuarial present value of future contributions divided by the actuarial present value of future earnings.	17.25%	16.10%
6.	**Member's Contribution Rate**	9.35%	9.35%
7.	**State's Normal Contribution Rate (5) - (6)**	7.90%	6.75%
8.	**Contribution Rate Appropriated**	18.00%	18.00%
9.	**Excess (Shortfall)** The excess of the appropriated contribution rate over the State's normal contribution rate: (8) - (7)	10.10%	11.25%
10.	**Projected Covered Payroll**	$ 25,272,192	$ 26,277,703
11.	**Estimated Amount of State's Contribution**		
	(a) Normal Contribution: (7) x (10)	1,996,503	1,773,745
	(b) Appropriated Contribution: (8) x (10)	4,548,995	4,729,987
	(c) Excess (Shortfall): (11b) - (11a)	2,552,492	2,956,242

SECTION V

PLAN ACCOUNTING INFORMATION

SECTION V

PLAN ACCOUNTING INFORMATION

Pension Benefit Obligation
GASB Statement No. 5

One measurement for evaluating the funded status of the Plan is the standardized "pension benefit obligation" as set forth in GASB Statement No. 5 for governmental plans. 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:

	7/1/96	7/1/97
Pension Benefit Obligation		
Former Members (in pay status or deferred)	$ 83,687,707	$ 90,759,922
Current Employees:		
- Estimated accumulated employee contributions including allocated investment earnings (at 8%)	23,263,220	25,487,590
- Employer-financed vested obligation	38,227,035	48,041,905
- Employer-financed nonvested obligation	15,603,846	2,411,309
Total Pension Benefit Obligation	$160,781,808	$166,700,726
Net Market Value of Assets Available for Benefits	$151,753,761	$180,551,242
Unfunded Pension Benefit Obligation	$ 9,028,047	$(13,850,516)
Funded Percentage	94.4%	108.3%

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

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) has 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 $(3,829,345) as of June 30, 1996 and the annual required contribution for the 1997 fiscal year of $1,996,503, the annual pension cost for the 1997 fiscal year is $2,049,003. The actual employer contribution is $4,597,867. The effect of the excess contribution is to decrease the net pension obligation by $2,548,864 to $(6,378,209) as of June 30, 1997. As a result, the annual pension cost for the 1998 fiscal year is $1,861,190 based on the annual required contribution of $1,773,745.

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	Market 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]
6/30/91	$ 82,238,357	$111,333,251	$29,094,894	73.87%	$18,487,882	157.37%
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%)

*This amount is based on the Projected Unit Credit method. The Aggregate method is used to determine the required contribution.

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)
6/30/91	$4,252,637	$3,242,922	76.26%
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%

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.

3. Economic assumptions are as follows: Inflation rate of 4.00%
   Investment return rate of 8.00%
   Salary increase rate of 6.00%
   Post-retirement benefit increases vary from 3.00% to 3.60%

4. The amortization method is an open period, level percentage of payroll. The average remaining service life of active members is 14 years as of 6/30/97.

Development of the Net Pension Obligation

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

Fiscal Year:	1989*	1990*	1991*	1992*	1993*
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	15
Cost Method	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate
Annual Pension Cost:					
Annual Required Contribution (ARC)	$2,943,424	$2,094,288	$4,252,637	$4,037,753	$3,588,539
Interest on NPO	(13,496)	16,113	28,110	108,608	163,370
Adjustment to ARC	15,171	(18,112)	(31,598)	(122,087)	(183,644)
Annual Pension Cost	$2,945,099	$2,902,289	$4,249,149	$4,024,274	$3,568,265
Contribution for the Year:	$2,574,984	$2,752,322	$3,242,922	$3,339,755	$3,648,617
Net Pension Obligation (NPO):					
NPO at beginning of year	$ (168,707)	$ 201,408	$ 351,375	$1,357,602	$2,042,121
Annual Pension Cost for year	2,945,099	2,902,289	4,249,149	4,024,274	3,568,265
Contributions for year	(2,574,984)	(2,752,322)	(3,242,922)	(3,339,755)	(3,648,617)
NPO at end of year	$ 201,408	$ 351,375	$1,357,602	$2,042,121	$1,961,769

Fiscal Year:	1994*	1995*	1996	1997	1998
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	14	14
Cost Method	Aggregate	Aggregate	Aggregate	Aggregate	Aggregate
Annual Pension Cost:					
Annual Required Contribution (ARC)	$2,177,401	$2,500,527	$1,763,383	$1,996,503	$1,773,145
Interest on NPO	156,942	35,934	(87,183)	(296,503)	(500,547)
Adjustment to ARC	(176,418)	(40,394)	98,004	347,316	586,328
Annual Pension Cost	$2,157,925	$2,496,067	$1,774,204	$2,047,316	$1,858,926
Contribution for the Year:	$3,670,513	$4,035,053	$4,390,688	$4,597,867	N/A
Net Pension Obligation (NPO):					
NPO at beginning of year	$ 1,961,769	$ 449,181	$(1,089,005)	$(3,706,289)	
Annual Pension Cost for year	2,157,925	2,496,067	1,774,204	2,047,316	
Contributions for year	(3,670,513)	(4,035,053)	(4,390,688)	(4,597,867)	
NPO at end of year	$ 449,181	$(1,089,805)	$(3,706,289)	$(6,256,840)	N/A

*As calculated by the System

APPENDIX A

SYSTEM MEMBERSHIP INFORMATION

Reconciliation of Member Status

	Active Members	Members & Beneficiaries Receiving Benefits	Former Members with Deferred Benefits	Children Receiving Benefits	Total
Members as of July 1, 1996	612	342	16	11	981
Began Receiving Benefits	(18)	28	0	0	10
Terminated With Further Benefit Eligibility	(5)	0	0	0	(5)
Terminated With Benefit Eligibility	0	0	0	0	0
Deceased	0	(14)	(1)	0	(15)
Newly Hired	37	0	0	0	37
Members as of July 1, 1997	626	356	15	11	1,008

AGE AND SERVICE DISTRIBUTION AS OF JULY 1, 1997 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	34	30,082	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	34	30,082
25-29	111	35,139	12	41,291	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	123	35,739
30-34	47	38,614	60	41,800	18	43,907	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA	125	40,153
35-39	11	38,408	19	41,661	44	43,696	15	46,380	0	NA	0	NA	0	NA	0	NA	0	NA	89	42,813
40-44	2	43,563	5	47,008	22	44,122	28	46,290	14	49,906	0	NA	0	NA	0	NA	0	NA	69	46,308
45-49	0	NA	1	47,940	2	50,050	13	45,621	59	49,509	5	53,316	0	NA	0	NA	0	NA	80	49,109
50-54	0	NA	1	47,940	0	NA	1	48,540	27	49,193	32	50,373	11	53,256	0	NA	0	NA	72	50,312
55-59	0	NA	0	NA	0	NA	1	80,920	5	50,984	7	48,489	15	50,973	0	NA	0	NA	28	51,423
60-64	0	NA	0	NA	0	NA	0	NA	2	40,405	0	NA	3	45,609	1	52,459	0	NA	6	45,016
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	205	34,788	98	42,101	86	43,997	58	46,818	107	49,380	44	50,407	29	51,284	1	52,459	0	NA	626	42,660

Average Age : 37.9
Average Years of Service : 12.1

ANALYSIS OF RETIREES AND BENEFICIARIES
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	2	0	0	11	1	3	17
40 to 44	0	3	1	0	0	2	1	7
45 to 49	0	5	1	0	0	2	3	11
50 to 54	1	7	5	0	0	3	8	24
55 to 59	36	24	2	10	0	5	0	77
60 to 64	50	13	2	4	0	8	0	77
65 to 69	39	8	1	4	0	13	0	65
70 to 74	44	1	1	2	0	8	0	56
75 to 79	12	1	0	0	0	6	0	19
80 to 84	4	1	0	0	0	11	0	16
85 to 89	1	0	0	0	0	11	0	12
90 to 94	1	0	0	0	0	0	0	1
95 to 99	0	0	0	0	0	0	0	0
00 & ove	0	0	0	0	0	0	0	0
Totals	188	65	13	20	11	70	15	382

ANALYSIS OF RETIREES AND BENEFICIARIES

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	0	0	22,375	0	0	0	0
40 to 44	0	0	26,096	0	18,446	0	0
45 to 49	0	0	26,323	0	19,583	0	0
50 to 54	24,692	0	29,199	0	27,099	0	0
55 to 59	28,489	0	25,369	0	19,928	0	14,324
60 to 64	25,808	0	23,964	0	15,351	0	12,350
65 to 69	21,832	0	23,864	0	14,360	0	7,897
70 to 74	19,956	0	17,810	0	12,957	0	7,405
75 to 79	15,409	0	16,159	0	0	0	0
80 to 84	17,451	0	20,662	0	0	0	0
85 to 89	23,034	0	0	0	0	0	0
90 to 94	15,565	0	0	0	0	0	0
95 to 99	0	0	0	0	0	0	0
100 & over	0	0	0	0	0	0	0
Totals	23,210	24,999	20,877	11,952	3,373	11,875	10,926

APPENDIX B

SUMMARY OF PLAN PROVISIONS

IOWA PEACE OFFICERS' RETIREMENT, ACCIDENT AND DISABILITY SYSTEM

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, 60% 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).

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.

(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 20% 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.

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) 30% for members receiving a service retirement allowance and for beneficiaries receiving an accidental death benefit.

(2) 30% for members with five or more years of membership who are receiving an ordinary disability benefit.

(3) 33-1/3% for member receiving an accidental disability benefit.

(4) 15% 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.

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	1971 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 age 20, grading down to 2% for ages 35-39, then 4% at age 40 grading down to 0% at age 52 and older.
6. Retirement age	Average age 58 or entry age plus 22, if later, but not greater than 65.

7.	Salary scale	6% increase each year.
8.	Post-retirement adjustments	Same as for retired members.

Retired Members and Other Beneficiaries:

1.	Mortality rate	Service retirements and female beneficiaries: 1971 Group Annuity Mortality (GAM) Tables - Male and Female.
2.	Mortality rate	Disability retirements: 1971 GAM Tables - Male and Female rated up 5 years in age.
3.	Annual readjustment of pensions	For retirements prior to July 1, 1990: 3.60% increase each year for retired members and beneficiaries; 3.00% for retired members receiving accidental disability; 3.60% for retired members receiving ordinary disability. For retirements July 1, 1990 through June 30, 1992: 3.33% increase each year for retired members and beneficiaries; 3.33% for retired members receiving accidental disability; 3.60% for retired members receiving ordinary disability. For retirements July 1, 1992 through June 30, 1993: 3.21% increase each year for retired members and beneficiaries; 3.33% for retired members receiving accidental disability; 3.60% for retired members receiving ordinary disability. For retirements July 1, 1993 through June 30, 1994: 3.10% increase each year for retired members and beneficiaries; 3.33% for retired members receiving accidental disability; 3.60% for retired members receiving ordinary disability. For retirements after July 1, 1994: 3.00% increase each year for retired members and beneficiaries; 3.33% for retired members receiving accidental disability; 3.60% 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.