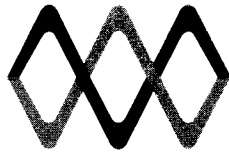


Elective State Officers Retirement Fund
ACTUARIAL VALUATION REPORT

July 1, 1996

 **FILE COPY**



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November 19, 1996

Legislative Commission on
Pensions and Retirement
55 State Office Building
St. Paul, Minnesota 55155

RE: Elective State Officers Retirement Fund

Commission Members:


Pursuant to the terms of our Actuarial Services Contract, we have performed an actuarial valuation of the Fund as of July 1, 1996.

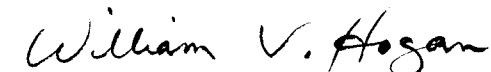
The results of our calculations are set forth in the following report, as are the actuarial assumptions upon which our calculations have been made. We have relied on the basic employee data and asset figures as submitted by the Minnesota State Retirement System.

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 the requirements of Section 356.215, Minnesota Statutes, and the requirements of the Standards for Actuarial Work, adopted by the Commission on July 8, 1992.

Respectfully submitted,

MILLIMAN & ROBERTSON, INC.


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Elective State Officers Retirement Fund

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Elective State Officers Retirement Fund

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Elective State Officers Retirement Fund

Report Highlights
(dollars in thousands)

	07/01/95 Valuation	07/01/96 Valuation
A. CONTRIBUTIONS (Table 11)		
1. Statutory Contributions - Chapter 352C % of Payroll	9.00%	9.00%
2. Required Contributions - Chapter 356 % of Payroll	43.58%	43.49%
3. Sufficiency (Deficiency): (A.1. - A.2.)	<u>-34.58%</u>	<u>-34.49%</u>
B. FUNDING RATIOS		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	\$378	\$412
b. Current Benefit Obligations (Table 8)	<u>\$2,800</u>	<u>\$2,843</u>
c. Funding Ratio: (a/b)	13.50%	14.49%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	\$378	\$412
b. Actuarial Accrued Liability (Table 9)	<u>\$2,948</u>	<u>\$2,983</u>
c. Funding Ratio: (a/b)	12.82%	13.81%
3. Projected Benefit Funding Ratio (Table 8)		
a. Current and Expected Future Assets	\$627	\$633
b. Current and Expected Future Benefit Obligations	<u>\$3,197</u>	<u>\$3,204</u>
c. Funding Ratio: (a/b)	19.61%	19.76%
C. PLAN PARTICIPANTS		
1. Active Members		
a. Number (Table 3)	6	6
b. Projected Annual Earnings	\$452	\$475
c. Average Annual Earnings (Actual \$)	\$75,333	\$79,128
d. Average Age	52.0	53.0
e. Average Service	10.3	11.3
2. Others		
a. Service Retirements (Table 4)	5	5
b. Survivors (Table 5)	6	7
c. Disability Retirements (Table 6)	0	0
d. Deferred Retirements (Table 7)	5	4
e. Terminated Other Non-vested (Table 7)	0	0
f. Total	<u>16</u>	<u>16</u>

Elective State Officers Retirement Fund

Commentary

Purpose

The purpose of this valuation is to determine the financial status of the Plan. In order to achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 356.215 of Minnesota Statutes.

Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

- The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits which have been earned by service to the valuation date. This year's ratio is 14.49%. The corresponding ratio for the prior year was 13.50%.
- The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. For 1996 the ratio is 13.81%, which is an increase from the 1995 value of 12.82%.
- The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. This year's ratio of 19.76% shows that the current statutory contributions are inadequate.

Asset Information (Tables 1 and 2)

Minnesota Statutes require that the asset value used for actuarial purposes recognize only a third of the unrealized gains and losses. This requirement exists because market values (which include all unrealized gain and losses) are typically volatile and can produce erratic changes in the contribution requirements from year to year.

The calculation of the Actuarial Value of Assets is shown in Table 1 on lines F1 to F6. It combines the cost value of the Assets Available for Benefits and one-third of the difference between the market value and cost value of those assets.

The term "Actuarial Value of Assets" is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as "Current Assets", the latter phrase will be used in the remainder of this report.

This Plan participates in the Minnesota Post Retirement Investment Fund (i.e. MPRIF). After the MPRIF liability has been calculated for each participating Plan, the State Board of Investments, (i.e. SBI), will determine each Plan's portion of the excess earnings for the January benefit increase as well as the Plan's allocated market share of MPRIF.

Actuarial Balance Sheet (Table 8)

An actuarial balance sheet provides a method for evaluating current and future levels of funding.

The Current Benefit Obligation used to measure current funding levels is calculated in accordance with Statement No. 5 of the Governmental Accounting Standards Board (GASB). Those requirements are:

- ° For Active Members - salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.
- ° For Non-active Members - the discounted value of benefits, including augmentation in cases where benefits have not commenced.

GASB Disclosure

The Current Benefit Obligation amounts in Table 8 are required to be disclosed by Statement No. 5 of the Governmental Accounting Standards Board (GASB). However, Statement No. 5 uses the terms "Actuarial Present Value of Credited Projected Benefits" and "Pension Benefit Obligation" rather than "Current Benefit Obligation".

The JULY 1, 1996 Pension Benefit Obligation reported in Table 8 is reformatted for GASB reporting purposes in the following table:

Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$1,554,000
Current Employees	
Accumulated employee contributions including allocated investment income	\$462,000
Employer-financed vested	797,000
Employer-financed nonvested	<u>30,000</u>
Total Pension Benefit Obligation	\$2,843,000
Net Assets Available for Benefits at Cost	\$412,000
Total Benefit Obligation less Assets	\$2,431,000
Funded Ratio	14.49%

Actuarial Cost Method (Table 9)

The approach used by the State of Minnesota to determine contribution sufficiency is the Entry Age Normal Actuarial Cost Method. The primary characteristic of this method is that it allocates costs as a level percentage of payroll.

A comparison of this actuarial method (Table 9) to the actuarial balance sheet (Table 8) illustrates the two techniques for allocating liabilities of active Members to past and future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities, on the basis of service. The method used in Table 9 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 8 and line A6, column 1, of Table 9).

An Unfunded Actuarial Accrued Liability is computed under the Entry Age Normal Actuarial Cost Method by comparing the liabilities allocated to past service (Actuarial Accrued Liability) to the Current Assets. This amount, line B3, is funded over the remaining years to the amortization date by a series of payments that remain a constant percentage of payroll each year.

The payments will increase 6.50% each year because that is the assumed rate of increase in payroll. Although the payment schedule will be adequate to amortize the existing unfunded, the lower payments in the earlier years will not be sufficient to cover the interest on the unfunded liability. After a few years, the annual payment will cover the interest and also repay a portion of the unfunded.

Sources of Actuarial Gains and Losses (Table 10)

The assumptions used in making the calculations using the Entry Age Normal Actuarial Cost Method are based on long-term expectations. Each year the actual experience will deviate from the long-term expectation. For a detailed analysis of the major components, refer to Table 10.

Contribution Sufficiency (Table 11)

This report determines the adequacy of Statutory Contributions by comparing the Statutory Contributions to the Required Contributions.

The Required Contributions, set forth in Chapter 356, consist of:

- Normal costs based on the Entry Age Normal Actuarial Cost Method.
- A Supplemental Contribution for amortizing any Unfunded Actuarial Accrued Liability.
- An Allowance for Expenses.

Table 11 shows the Plan has a contribution deficiency since the Statutory Contribution Rate is 9.00% compared to the Required Contribution Rate of 43.49%.

Changes in Actuarial Assumptions

There were no changes in actuarial assumptions since the last valuation.

Changes in Plan Provisions

There were no changes in plan provisions since the last valuation which impacted funding costs.

Elective State Officers Retirement Fund

Accounting Balance Sheet*(dollars in thousands)*

JULY 1, 1996

	Market Value	Cost Value
A. ASSETS		
1. Cash, Equivalents, Short-term Securities	\$0	\$0
2. Investments		
a. Fixed Income	0	0
b. Equity	0	0
c. Real Estate	0	0
3. Equity in Minnesota Post-Retirement Investment Fund (MPRIF)	0	0
4. Other *	415	415
B. TOTAL ASSETS	<u>\$415</u>	<u>\$415</u>
C. AMOUNTS CURRENTLY PAYABLE	\$3	\$3
D. ASSETS AVAILABLE FOR BENEFITS		
1. Member Reserves	\$414	\$414
2. Employer Reserves	(1,314)	(1,314)
3. MPRIF Reserves	0	0
4. Non-MPRIF Reserves	1,312	1,312
5. Total Assets Available for Benefits	<u>\$412</u>	<u>\$412</u>
E. TOTAL AMOUNTS CURRENTLY PAYABLE AND ASSETS AVAILABLE FOR BENEFITS	<u>\$415</u>	<u>\$415</u>
<hr/>		
F. DETERMINATION OF ACTUARIAL VALUE OF ASSETS		
1. Cost Value of Assets Available for Benefits (D5)		\$412
2. Market Value (D5)	\$412	
3. Cost Value (D5)	412	
4. Market Over Cost: (F2-F3)	<u>\$0</u>	
5. 1/3 of Market Over Cost: (F4)/3		0
6. Actuarial Value of Assets (F1+F5) (Same as "Current Assets")		<u>\$412</u>

* Includes \$379 of Member Reserves not segregated from general funds.

TABLE 2

Elective State Officers Retirement Fund

Change In Assets Available For Benefits*(dollars in thousands)*

YEAR ENDING JUNE 30, 1996

	<u>Market Value</u>	<u>Cost Value</u>
A. ASSETS AVAILABLE AT BEGINNING OF PERIOD	\$379	\$379
B. OPERATING REVENUES		
1. Member Contributions	\$41	\$41
2. Employer Contributions	0	0
3. Investment Income	0	0
4. MPRIF Income	0	0
5. Net Realized Gain (Loss)	0	0
6. Other	151	151
7. Net Change in Unrealized Gain (Loss)	0	0
8. Total Revenue	<u>\$192</u>	<u>\$192</u>
C. OPERATING EXPENSES		
1. Service Retirements	\$156	\$156
2. Disability Benefits	0	0
3. Survivor Benefits	0	0
4. Refunds	0	0
5. Investment Fees	0	0
6. Administrative Expenses	3	3
7. Other	0	0
8. Total Disbursements	<u>\$159</u>	<u>\$159</u>
D. OTHER CHANGES IN RESERVES	0	0
E. ASSETS AVAILABLE AT END OF PERIOD	<u><u>\$412</u></u>	<u><u>\$412</u></u>

TABLE 3

ELECTIVE STATE OFFICERS RETIREMENT PLAN
ACTIVE MEMBERS AS OF JUNE 30, 1996

<u>Age</u>	<u>Years of Service</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	1	0	0	0	0	0	0	1
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0
50-54	0	1	1	1	0	0	0	0	3
55-59	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	1	1	0	0	2
65+	0	0	0	0	0	0	0	0	0
ALL	0	2	1	1	1	1	0	0	6

AVERAGE ANNUAL EARNINGS

<u>Age</u>	<u>Years of Service</u>								<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	
<25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	68,453	0	0	0	0	0	0	68,453
35-39	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0	0	0
50-54	0	62,733	62,733	89,108	0	0	0	0	71,525
55-59	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	114,068	62,733	0	0	88,401
65+	0	0	0	0	0	0	0	0	0
ALL	0	65,593	62,733	89,108	114,068	62,733	0	0	76,638

PRIOR FISCAL YEAR EARNINGS (IN ACTUAL DOLLARS) BY YEARS OF SERVICE

<u>Age</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30+</u>	<u>ALL</u>
All	0	131,186	62,733	89,108	114,068	62,733	0	0	459,828

ELECTIVE STATE OFFICERS RETIREMENT PLAN

SERVICE RETIREMENTS AS OF JUNE 30, 1996

Age	YEARS RETIRED							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	1	0	0	0	0	0	1
65-69	1	2	0	0	0	0	0	3
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	1	0	0	1
85+	0	0	0	0	0	0	0	0
ALL	1	3	0	0	1	0	0	5

AVERAGE ANNUAL BENEFIT

Age	YEARS RETIRED							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	4,089	0	0	0	0	0	4,089
65-69	1,948	18,029	0	0	0	0	0	12,669
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	19,035	0	0	19,035
85+	0	0	0	0	0	0	0	0
ALL	1,948	13,382	0	0	19,035	0	0	12,226

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) BY YEARS RETIRED

Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
All	1,948	40,146	0	0	19,035	0	0	61,130

TABLE 5

ELECTIVE STATE OFFICERS RETIREMENT PLAN

SURVIVORS AS OF JUNE 30, 1996

<u>Age</u>	<u>YEARS SINCE DEATH</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	1	0	0	0	0	0	1
60-64	0	0	0	0	0	0	0	0
65-69	1	0	0	0	0	0	0	1
70-74	0	0	0	0	0	0	0	0
75-79	0	1	0	0	0	0	0	1
80-84	0	0	1	0	1	1	0	3
85+	0	0	0	0	0	0	1	1
ALL	1	2	1	0	1	1	1	7

AVERAGE ANNUAL BENEFIT

<u>Age</u>	<u>YEARS SINCE DEATH</u>							<u>ALL</u>
	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	
<50	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	4,089	0	0	0	0	0	4,089
60-64	0	0	0	0	0	0	0	0
65-69	23,794	0	0	0	0	0	0	23,794
70-74	0	0	0	0	0	0	0	0
75-79	0	11,496	0	0	0	0	0	11,496
80-84	0	0	21,348	0	5,370	18,213	0	14,977
85+	0	0	0	0	0	0	10,387	10,387
ALL	23,794	7,793	21,348	0	5,370	18,213	10,387	13,528

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) BY YEARS SINCE DEATH

<u>Age</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25+</u>	<u>ALL</u>
All	23,794	15,586	21,348	0	5,370	18,213	10,387	94,696

ELECTIVE STATE OFFICERS RETIREMENT PLAN

DISABILITY RETIREMENTS AS OF JUNE 30, 1996

Age	YEARS DISABLED							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	0	0	0	0	0	0	0

AVERAGE ANNUAL BENEFIT

Age	YEARS DISABLED							ALL
	<1	1-4	5-9	10-14	15-19	20-24	25+	
<50	0	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0
ALL	0	0	0	0	0	0	0	0

TOTAL ANNUAL BENEFIT (ACTUAL DOLLARS) BY YEARS DISABLED

Age	<1	1-4	5-9	10-14	15-19	20-24	25+	ALL
All	0	0	0	0	0	0	0	0

TABLE 7

Elective State Officers Retirement Fund

Reconciliation Of Members

	Actives	Terminated	
		Deferred Retirement	Other Non-Vested
A. ON JUNE 30, 1995	6	5	0
B. ADDITIONS	0	0	0
C. DELETIONS			
1. Service Retirement	0	(1)	0
2. Disability	0	0	0
3. Death	0	0	0
4. Terminated - Deferred	0	0	0
5. Terminated - Refund	0	0	0
6. Terminated - Other Non-Vested	0	0	0
7. Returned as Active	0	0	0
8. Transferred to Other Fund	0	0	0
D. DATA ADJUSTMENTS	0	0	0
Vested	4		
Non-Vested	2		
E. TOTAL ON JUNE 30, 1996	6	4	0

	Recipients		
	Retirement Annuitants	Disabled	Survivors
A. ON JUNE 30, 1995	5	0	6
B. ADDITIONS	1	0	1
C. DELETIONS			
1. Service Retirement	0	0	0
2. Death	(1)	0	0
3. Annuity Expired	0	0	0
4. Returned as Active	0	0	0
D. DATA ADJUSTMENTS	0	0	0
E. TOTAL ON JUNE 30, 1996	5	0	7

Elective State Officers Retirement Fund

Actuarial Balance Sheet*(dollars in thousands)*

JULY 1, 1996

A. CURRENT ASSETS (TABLE 1, F6)				\$412
B. EXPECTED FUTURE ASSETS				
1. Present Value of Expected Future Statutory Supplemental Contributions (See Table 11)				\$0
2. Present Value of Future Normal Costs				221
3. Total Expected Future Assets				<u>\$221</u>
C. TOTAL CURRENT AND EXPECTED FUTURE ASSETS				<u><u>\$633</u></u>
D. CURRENT BENEFIT OBLIGATIONS	<u>Non-Vested</u>	<u>Vested</u>		<u>Total</u>
1. Benefit Recipients				
a. Retirement Annuities		\$503		\$503
b. Disability Benefits		0		0
c. Surviving Spouse and Child Benefits		809		809
2. Deferred Retirements with Future Augmentation		242		242
3. Former Members without Vested Rights		0		0
4. Active Members				
a. Retirement Annuities	6	1,089		1,095
b. Disability Benefits	0	0		0
c. Survivor's Benefits	15	0		15
d. Deferred Retirements	9	161		170
e. Refund Liability Due to Death or Withdrawal	0	9		9
5. Total Current Benefit Obligations	<u>\$30</u>	<u>\$2,813</u>		<u>\$2,843</u>
E. EXPECTED FUTURE BENEFIT OBLIGATIONS				<u>\$361</u>
F. TOTAL CURRENT AND EXPECTED FUTURE BENEFIT OBLIGATIONS				<u><u>\$3,204</u></u>
G. CURRENT UNFUNDED ACTUARIAL LIABILITY (D5-A)				\$2,431
H. CURRENT AND FUTURE UNFUNDED ACTUARIAL LIABILITY (F-C)				\$2,571

Elective State Officers Retirement Fund

**Determination Of Unfunded Actuarial Accrued Liability (UAAL)
And Supplemental Contribution Rate**

(dollars in thousands)

JULY 1, 1996

	Actuarial Present Value of Projected Benefits <i>(1)</i>	Actuarial Present Value of Future Normal Costs <i>(2)</i>	Actuarial Accrued Liability <i>(3)=(1)-(2)</i>
A. DETERMINATION OF ACTUARIAL ACCRUED LIABILITY (AAL)			
1. Active Members			
a. Retirement Annuities	\$1,340	\$67	\$1,273
b. Disability Benefits	0	0	0
c. Survivor's Benefit	20	7	13
d. Deferred Retirements	266	112	154
e. Refunds Due to Death or Withdrawal	24	35	(11)
f. Total	<u>\$1,650</u>	<u>\$221</u>	<u>\$1,429</u>
2. Deferred Retirements With Future Augmentation	242		242
3. Former Members Without Vested Rights	0		0
4. Annuitants in MPRIF	0		0
5. Recipients Not in MPRIF	<u>1,312</u>		<u>1,312</u>
6. Total	<u>\$3,204</u>	<u>\$221</u>	<u>\$2,983</u>
B. DETERMINATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)			
1. AAL (A6)			\$2,983
2. Current Assets (Table 1, F6)			412
3. UAAL (B1-B2)			<u>\$2,571</u>
C. DETERMINATION OF SUPPLEMENTAL CONTRIBUTION RATE			
1. Present Value of Future Payrolls Through the Amortization Date of July 1, 2020			\$8,877
2. Supplemental Contribution Rate (B3/C1)			28.96%

Note: If non-segregated member reserves were not counted as assets, the UAAL would be \$2,950, resulting in a Supplemental Contribution Rate of 33.23%.

Elective State Officers Retirement Fund

Changes In Unfunded Actuarial Accrued Liability (UAAL)*(dollars in thousands)*

YEAR ENDING JUNE 30, 1996

A. UAAL AT BEGINNING OF YEAR	\$2,570
B. CHANGE DUE TO INTEREST REQUIREMENTS AND CURRENT RATE OF FUNDING	
1. Normal Cost and Expenses	\$64
2. Contribution	(41)
3. Interest on A, B1 and B2	219
4. Total (B1+B2+B3)	\$242
C. EXPECTED UAAL AT END OF YEAR (A+B4)	\$2,812
D. INCREASE (DECREASE) DUE TO ACTUARIAL LOSSES (GAINS) BECAUSE OF EXPERIENCE DEVIATIONS FROM EXPECTED	
1. Salary Increases	(\$111)
2. Investment Return	34
3. MPRIF Mortality	0
4. Mortality of Other Benefit Recipients	(95)
5. Other Items	(69)
6. Total	(\$241)
E. UAAL AT END OF YEAR BEFORE PLAN AMENDMENTS AND CHANGES IN ACTUARIAL ASSUMPTION (C+D6)	\$2,571
F. CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO PLAN AMENDMENTS	0
G. CHANGE IN ACTUARIAL ACCRUED LIABILITY DUE TO CHANGES IN ACTUARIAL ASSUMPTIONS	0
H. UAAL AT END OF YEAR (E+F+G)	\$2,571

Elective State Officers Retirement Fund

Determination Of Contribution Sufficiency*(dollars in thousands)*

JULY 1, 1996

	Percent of Payroll	Dollar Amount
A. STATUTORY CONTRIBUTIONS - CHAPTER 352C		
1. Employee Contributions	9.00%	\$43
2. Employer Contributions	0.00%	0 *
3. Total	<u>9.00%</u>	<u>\$43</u>
* Employer contributions are required to cover the portion of the benefit liabilities which are not funded by the member's accumulated contribution at the time of benefit commencement.		
B. REQUIRED CONTRIBUTIONS - CHAPTER 356		
1. Normal Cost		
a. Retirement Benefits	4.21%	\$20
b. Disability benefits	0.00%	0
c. Survivors	0.42%	2
d. Deferred Retirement Benefits	7.16%	34
e. Refunds Due to Death or Withdrawal	2.11%	10
f. Total	<u>13.90%</u>	<u>\$66</u>
2. Supplemental Contribution Amortization by July 1, 2020 of UAAL	28.96%	137
3. Allowance for Expenses	0.63%	3
4. Total	<u>43.49%</u>	<u>\$206</u>
C. CONTRIBUTION SUFFICIENCY (DEFICIENCY) [A3-B4]	-34.49%	(\$163)

Note: Projected Annual Payroll for Fiscal Year Beginning on JULY 1, 1996 is \$475.

The deficiency amount shown above is calculated based on reported assets which include a receivable of \$379 for member contribution that are held in the State's general fund. If this amount was not considered as an asset of the fund in these calculations, the deficiency would be 38.76%.

Elective State Officers Retirement Fund

Summary of Actuarial Assumptions and Methods

Interest:	Pre-Retirement: 8.5% per annum
	Post-Retirement: 5.0% per annum
Salary Increases:	The statutory salary rate as prescribed in Chapter 345, Article I. Sec. 28, through January 1, 1996 and 6.5% per year thereafter.
Mortality:	Pre-Retirement:
	Male - 1971 Group Annuity Mortality Table
	Female - 1971 Group Annuity Mortality Table male rates set back 8 years
	Post-Retirement:
	Male - Same as above
	Female - Same as above
	Post-Disability:
	Male - N/A
	Female - N/A
Retirement Age:	Age 62 or if over age 62, one year from valuation date.
Separation:	Rates based on years of service:

<u>Year</u>	<u>Rate</u>
1	0%
2	0
3	0
4	50
5	0
6	0
7	0
8	50

Disability: None

TABLE 12*(Continued)*

<i>Expenses:</i>	Prior year administration expenses expressed as percentage of prior year payroll.
<i>Return of Contributions:</i>	All employees withdrawing after eight years of service were assumed to leave their contributions on deposit and receive a deferred annuitant benefit.
<i>Family Composition:</i>	85% of Members are assumed to be married. Female is three years younger than male. Each Member may have up to two dependent children depending on the Member's age. Assume first child born at Member's age 28 and second child born at Member's age 31.
<i>Social Security:</i>	N/A
<i>Benefit Increases After Retirement:</i>	Payment of earnings on retired reserves in excess of 5% accounted for by 5% post-retirement assumptions.
<i>Actuarial Cost Method:</i>	Entry Age Normal Actuarial Cost Method based on earnings and the date the employee entered the plan is applied to all plan benefits. Under this method, Actuarial Gains (Losses) reduce (increase) the Unfunded Actuarial Accrued Liability.
<i>Asset Valuation Method:</i>	Cost Value plus one-third Unrealized Gains or Losses.
<i>Payment on the Unfunded Actuarial Accrued Liability:</i>	A level percentage of payroll each year to the statutory amortization date assuming payroll increases of 6.5% per annum.

Elective State Officers Retirement Fund

Summary of Plan Provisions**GENERAL**

<i>Eligibility:</i>	Employment as a "Constitutional Officer".
<i>Contributions:</i>	
<i>Member:</i>	9% of salary.
<i>Employer:</i>	No specified statutory contribution rate. State must contribute an amount equal to the full annuity value at benefit commencement less accumulated member contributions.
<i>Allowable Service:</i>	Service while in an eligible position.
<i>Salary:</i>	Salary upon which Elective State Officers Retirement Plan contributions have been made.
<i>Average Salary:</i>	Average of the five highest successive years of salary.

RETIREMENT***Normal Retirement Benefit:***

<i>Eligibility:</i>	Age 62 and eight years of Allowable Service.
<i>Amount:</i>	2.5% of Average Salary for each year of Allowable Service.

Early Retirement Benefit:

<i>Eligibility:</i>	Age 60 and eight years of Allowable Service.
<i>Amount:</i>	Normal Retirement Benefit based on Allowable Service and Average Salary at retirement date with reduction of 0.5% for each month the Member is under age 62 at time of retirement.
<i>Form of Payment:</i>	Life annuity
<i>Benefit Increases:</i>	Adjusted by MSRS to provide same increase as MPRIF.

DISABILITY

None

DEATH

Surviving Spouse Benefit:

Eligibility: Death while active or after retirement or with at least eight years of Allowable Service.

Amount: Survivor's payment of 50% of the retirement benefit of the Member assuming the Member had attained age 62 and had a minimum of eight years of Allowable Service. Benefit is paid for life. A former Member's benefit is augmented the same as a Deferred Annuity to date of death before determining the portion payable to the spouse.

Surviving Dependent Child Benefit:

Eligibility: Same as spouse's benefit.

Amount: Benefit for first child is 25% of the retirement benefit (computed as for surviving spouse) with 12.5% for each additional child. Maximum payable (including spouse) is 100% of the retirement benefit. Benefits cease when a child marries or attains age 18 (22 if a full-time student).

Benefit Increases: Adjusted by MSRS to provide same increase as MPRIF.

TERMINATION

Refund of Contributions:

Eligibility: Termination of service.

Amount: Member's contributions with 5% interest compounded annually if termination occurred before May 16, 1989 and 6% interest compounded annually if termination occurred on or after May 16, 1989. A deferred annuity may be elected in lieu of a refund.

Deferred Benefit:

<i>Eligibility:</i>	Eight years of Allowable Service.
<i>Amount:</i>	Benefit computed under law in effect at termination and increased by the following annual percentage: 0% before 7/1/79; 5% from 7/1/79 to 1/1/81; and 3% until age 55; and 5% thereafter until the annuity begins. Amount is payable as a normal or early retirement.

SIGNIFICANT CHANGES

None.