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MAINE STATE RETIREMENT SYSTEM

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October 5, 1993

Members, Committee to Study the Retirement System

Dear Committee Member:

As requested, the MSRS is submitting an analysis of the accrued unfunded liability dating back to 1972.

This analysis is intended to provide Committee members with an overview of what transpired during the last 20 years resulting in the present accrued unfunded liability. We attempted to identify major events that occurred during this period and present supporting documentation in the form of Board minutes, legislation, correspondence, actuarial analysis, etc.

Much of what was done was a reconstruction of historical events spanning 20 years and in some cases, information was simply not available and is therefore not presented. However, we attempted to be as accurate and complete as possible in order to present an objective analysis of the events as they occurred. Apart from specific events such as legislative changes, the System incurred experience gains and losses throughout this period of time which have been identified in the summary entitled Chart I.

I am prepared to answer any questions and provide you with an explanation of our approach in developing this information.

Yours truly, Claude R. Perrier

Executive Director

CRP/pjm Enclosure

CHAKT I UNFUNDED ACCRUED LIABILITY

	FY							
		M.S. 1/70 to 1/60, AFC FROM 5 YEAR AVE. TO 3 YEAR AVE., MINIMUM BEN. \$80 MO.						
	72							
NEW ACTUARY	73	NO REPORT LOCATED						
	74	M.S 1/60 TO 1/50, P.S. 1/60 TO 1/50, MINIMUM BEN. \$80 TO \$100 MO INC. UAL, \$175M EARLY RET. 30 YRS. TO 25 YRS.						
	75	INVESTMENT LOSS \$13.25M, SALARY INCREASES \$6.75M, OLD SYSTEM TEACHERS OST \$10M	\$ 495M					
	76	EXPERIENCE LOSSES, INVEST RETURN, SALARY INC., RETIREMENT AGES OST \$14M	\$ 528M					
	77	INVESTMENT RETURN, COLA, RETIREMENT AGES OST \$ 6M	\$ 589M					
ASSUMPTION CHANGES	78	ACTUARIAL ASSUM. CHG \$101M, EXPER. LOSS - \$79M (SALARY, COLA, RET. AGE, INVEST) OST \$30M	\$ 799M					
	79	TEACHER PRIOR SERV. PRE 1942 1/60 TO 1/50 - \$9M, EXP. LOSSES \$47M (SALARY, RET. AGES) OST \$18M	\$ 873M					
	80	EXPER. LOSSES - \$53M (SALARY, RET. AGES) OST \$16M	\$ 942M					
FUNDING OST BEGAN	81	EXPER. LOSSES - \$39M (SALARY, RET. AGES) - INVEST GAIN OST \$20M	\$1,001M					
	82	EXPER. LOSSES - \$51M (SALARY, RET. AGES) EXTRA 2% COLA - \$15M - INVEST GAIN OST \$10M	\$1,077M					
*	83	EXPER. GAINS & LOSSES BALANCED, EXTRA 50¢ COLA - \$17M - INVEST GAIN OST \$11M	\$1,102M					
	84	EXPER. LOSSES - \$51M (SALARY, RET. AGES, INVEST) BENEFIT REVISION (SOUCY) - \$1.3M, EXTRA 1.4% COLA OST N/C	\$1,155M					
	85	EXPER. LOSSES - \$25M (RET. AGES) - INVEST GAIN	\$1,190M					
NEW ACTUARY	86	FUNDING METHOD CHANGED FROM "ATTAINED AGE NORMAL" TO "ENTRY AGE NORMAL," ASSUMPTIONS CHANGED	\$1,046M					
ASSUMPTION CHANGES	87	ASSUMPTIONS STRENGTHENED (RETIRE AGE 60) EXPERIENCE LOSSES (SALARIES, RET. AGES) ASSET GAIN \$23M	\$1,185M					
	88	EXPER. LOSSES - ASSET LOSS OF \$23M	\$1,301M					
	89	EXPER. LOSSES - ASSET LOSS OF \$3M	\$1,311M					
	90	EXPER. LOSSES - ASSET GAIN OF \$3M	\$1,308M					
BENEFIT CHANGES	91	EXPER. LOSSES - ASSET LOSS OF \$10M - BENEFIT CHANGES (GAIN) - CONTRIBUTIONS LESS THAN EXPECTED - \$13M	\$1,394M					
ASSUMPTION CHANGES	92	EXPER. LOSSES - ASSET GAIN OF \$29M - CONTRIBUTIONS LESS THAN EXPECTED - ASSUMPTION CHANGES	\$1,488M					
	93	EXPER. LOSSES - ASSET GAIN OF \$82M - CONTRIBUTIONS LESS THAN EXPECTED - GAIN - ASSUMPTION CHANGES	\$1,252M					
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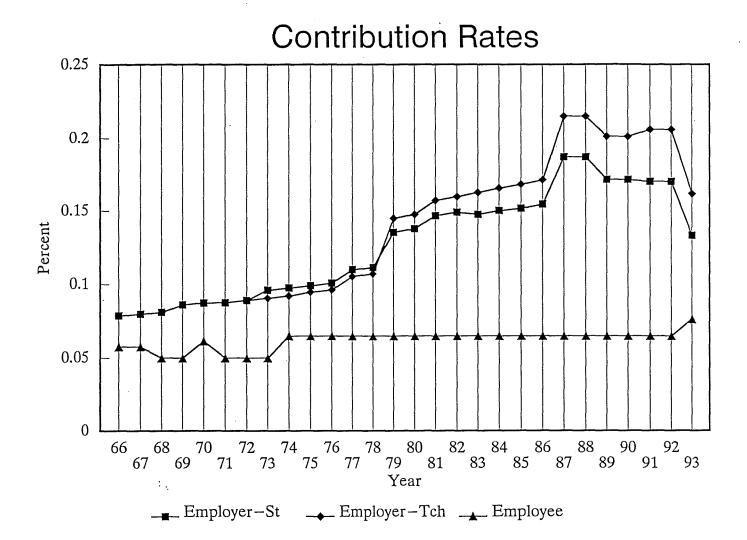
CHAKI II

6/30 SALARY		RY .	COLA		INVEST			
VALUATION	ASSUM.	ACTUAL	ASSUM.	ACTUAL	ASSUM.	ACTUARIAL VALUE	ACT. TIME <u>WEIGHTED</u>	MEMBER CONTRIBUTION
· 92	6 %	2.5%	4%	4 %	8 %	9.32%	12.9 %	6.5 %
91	6 %	6.9%	4%	4 %	8.5%	8.00%	6.1 %	6.5 %
90	6 %	6.7%	4%	4 %	9.0%	9.25%	10.02%	6.5 %
89	6 %	5.8%	4%	4.0 %	9.5%	9.25%	13.25%	6.5 %
88 ·	6 %	10 %	4%	3.7 %	10.0%	7.43%	-1.07%	6.5 %
87	6 %	9.2%	4%	1.7 %	10.5%	12.56%	12.49%	6.5 %
86	. 6 %	15 %	4%	3.7 %	8.5%		27.08%	6.5 %
85	5.5%	6.6%	4%	4 %	8.5%	12.71%	27.05%	6.5 %
84	5.5%	6.5%	4%	4 %**	8.5%	7.58%	-7.17%	6.5 %
83	5.5%	3 %	4%	4 %+50¢*	8.5%	18.60%	47.55%	6.5 %
82 .	5.5%	12 %	4%	6 %	8.5%	11.45%	- 1.84%	6.5 %
81	5.5%	9 %	4%	4 %	8.5%	9.95%	15.89%	6.5 %
80	5.5%	10 %	4%	4 %	8.5%	8.72% 7.92%	14.75%	6.5 %
79	\$ 5.5%	9 %	4%	4 %	8.5%	8.45% 7.94%	11.78%	6.5 %
78	5.5%	12 %	4%	9.58%	8.5%	5.24%	4.39%	6.5 %
77	3.5%	1.0%	2%	7.7 %	6.5%	3.56%	2.70%	6.5 %
76	3.5%	4.8%	2%	0.0 %	6.5%	5.77%	7.70%	6.5 %
75	3.5%	7.3%	2%	0.0 %	6.5%	5.67%	11.90%	6.5 %
74	3.5%	5.5%	2%	5.5 %	6.5%	3.23%	- 11.80%	6.5 % eff. 10/1/73
72					5.5%	4.53%	8.00%	5.0 % ***
70					5.5%			5 % eff. 9/1/70
70					5.0%			6.14% eff. 1/1/70
68					4.0%			5.0 % eff. 9/1/68
PRIOR					3.0%			5.75% prior

*In addition to 4%, each service retirement recipient received 50¢ per month per year of creditable service. Benefits not based on service received extra 2%.

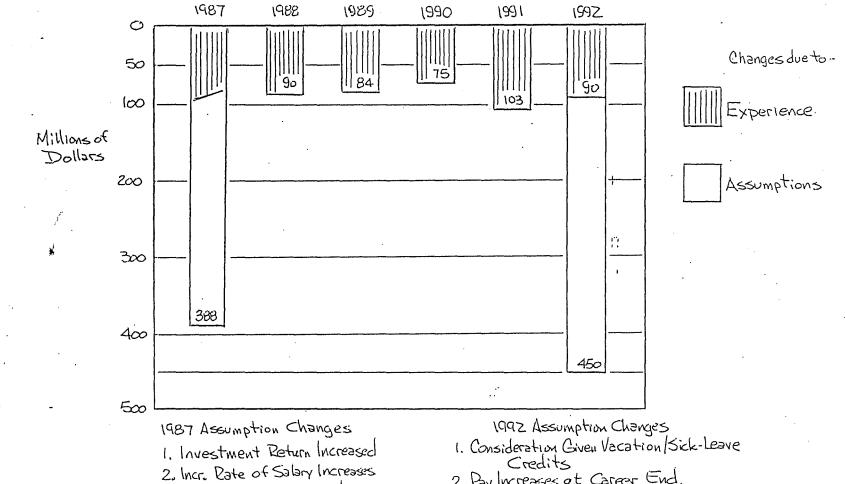
**CPI was 2.6%, 4% COLA granted

***L 743 - provided for employer rate up to 5.7% based on recommend in by Actuary and set by Board.



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Maine State Detirement System ACTUARIAL LOSSES DUE TO CHANGES IN ASSUMPTIONS & EXPERIENCE



3. Refirement Age Lowered

^{2.} Pay Increases at Career End,