

New York State and Local  
Employees' Retirement System  
Police and Fire Retirement System  
Public Employees' Group Life Insurance Plan

Alan G. Hevesi  
State Comptroller

## **Actuarial Valuations**

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**Fiscal Year Beginning April 1, 2002 For 12/15/03 Billing**

**Fiscal Year Beginning April 1, 2003 For 12/15/04 Billing**

## INTRODUCTION

This booklet reflects implementation of a comprehensive reform program promulgated by Chapter 49 of the Laws of 2003, signed into law on 5/14/2003 which was effective immediately. It contains the employer billing rates applied to salaries for both fiscal years ending 2004 and 2005. The intent of the legislation is to strengthen the long-term fiscal health of the retirement systems, reduce volatility of contribution rates, and provide budget certainty for all employers. The main directives of this law are

1. Requires a minimum annual contribution rate (exclusive of group life insurance premiums, deficiency payments, prior years adjustments, incentive payments, or any other obligations that may be amortized) equal to 4.5%, applied to pensionable salaries.
2. The actuarial valuation undertaken on the first day of a fiscal year shall be used to determine the contribution rates to be applied to pensionable salaries of the next succeeding fiscal year.
3. On or about October 15, 2003, for each employer we shall determine the amount of the annual contribution due 12/15/04 which is eligible for amortization or bonding. Bonding is not an option for the state. Such amortization amount shall be eligible to be paid over 5 years at 8% interest, with the first of five equal payments starting 12/15/04. The amortization amount is the normal rate plus administrative rate plus optional rates less 7%, multiplied by estimated FYE 2005 salaries.

The FYB 4/1/2002 actuarial valuation, previously used to calculate the FYE 3/31/03 employer contribution rates (averaging .9% normal rate for ERS and 0% normal rate in PFRS), is now to be used for the calculation of the 2004 rates. This valuation is modified by (1) removing a years worth of payments from the PV deficiency and late start rate contributions, (2) adding the 12/15/03 contributions as a receivable, (3) and removing the 4/1/02-3/31/03 indexed compensation from the indexed P.V. compensation in the denominator of the basic plans normal rate calculation. After adjusting for these changes, the rates in both systems are below the new minimum level, and therefore the 4.5% minimum is invoked for both systems. For specific details of the 4/1/2002 valuation, please see the 4/1/02 valuation book issued last year. For each system, the first section displays the 2004 rates using this minimum. These are followed by the 4/1/03 actuarial valuation applied to 4/1/04-3/31/05 salaries, payable December 15, 2004 for participating employers. The administrative rates for fiscal 2004 and 2005 are determined by dividing an estimate of the administrative expenses by an estimate of the billing salary base, for each year. The GLIP rates for fiscal 2004 and 2005 are determined by projecting claims and billing salary for 3 years, to ensure that our reserve never goes below the projected payables.



## ACTUARIAL VALUATION

### GRAY SECTION - ERS

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2. FISCAL YEAR BEGINNING 4/1/03 FOR THE 12/15/04 BILLING -- PAGES 5-49

### WHITE SECTION - PFRS

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2. FISCAL YEAR BEGINNING 4/1/03 FOR THE 12/15/04 BILLING -- PAGES 4-41



\*\*\*\*\*  
EMPLOYEE'S  
RETIREMENT SYSTEM  
\*\*\*\*\*  
FISCAL YEAR  
BEGINNING 4/1/02  
ACTUARIAL VALUATION  
FOR 12/15/03 BILLING  
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ADMINISTRATIVE AND GROUP LIFE INSURANCE RATES  
FOR FISCAL 2004

\*\*\*\*\* ADMINISTRATIVE RATE \*\*\*\*\*

ADMINISTRATIVE EXPENSES FOR 4/1/03-3/31/04 =		\$59,148,899
(THE ADMINISTRATIVE EXPENSES FOR 4/1/03-3/31/04 ARE ASSUMED TO BE THE SAME AS THOSE FOR 4/1/02-3/31/03)		
- ADMINISTRATIVE OVERBILL ACCOUNT		- <u>(2,782,670)</u>
	TOTAL ADMIN EXPENSES	\$61,931,569
ADMINISTRATIVE RATE =	$\frac{\text{TOTAL ADMIN EXPENSE}}{\text{EST. BILLING SALARY}} =$	0.003174
	$= \quad \quad \quad 0.4 \%$	

ESTIMATED BILLING SALARY IS ESTIMATED SALARY TO BE USED IN THE 12/15/03 NON-STATE BILLING AND THE 9/1/03 STATE BILLING.

WE ALWAYS ROUND THE RATE TO THE NEXT HIGHEST TENTH OF A PERCENT SINCE THE ADMINISTRATIVE EXPENSE MUST BE PAID.

\*\*\*\*\* GROUP LIFE INSURANCE RATES \*\*\*\*\*

THE ERS PORTION OF THE GTLI EQUITY IN THE COMMON RETIREMENT FUND ON 4/1/2003 IS \$49,961,738. THE GTLI EQUITY APPRECIATES WITH INTEREST AT THE RATE ACCRUED BY OUR SHORT-TERM INVESTMENT POOL, A NON-VOLATILE INVESTMENT VEHICLE. ON ANY GIVEN DAY, THE AMOUNT PAYABLE FOR OUTSTANDING GTLI BENEFITS ARE ESTIMATED TO BE APPROXIMATELY \$25 MILLION. A GTLI PREMIUM RATE AVERAGING APPROXIMATELY .4% OF BILLABLE SALARY IS NEEDED TO ENSURE THAT THE GTLI EQUITY DOES NOT GO BELOW THIS AMOUNT PAYABLE BEFORE DECEMBER 15, 2004. FOLLOWING ARE THE PREMIUMS SET BY PLAN.

GROUP LIFE LIABILITY * 3.5 MO DISCOUNT FACTOR					
GROUP LIFE RATE = _____					
PLAN SALARY * PROJECTED LOSS RATIO					
PROJECTED LOSS RATIO = 0.84					
	LIABILITY	PLAN SALARY	UNROUNDED RATE	BILLING RATE	
<b>State Special Plans</b>					
Inactive Members	0				
Active Members	<u>1,450,000</u>				
Total	1,450,000	1,124,261,809	0.001501		0.2 %
<b>Non-State Special Plans</b>					
Inactive Members	131,644				
Active Members	<u>796,236</u>				
Total	927,880	631,342,431	0.001711		0.2 %
<b>All other Plans</b>					
Inactive Members	21,218,119				
Active Members	<u>43,430,259</u>				
Total	64,648,378	17,543,962,587	0.004289		0.4 %



ERS TIER 1 FINAL RATES  
(as a percent)  
FYB 4/1/02 for fiscal 2004

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	4.1	0.4	0.4		4.9
SEC 75-c	4.1	0.4	0.4		4.9
SEC 75-e	4.1	0.4	0.4		4.9
SEC 75-g	4.1	0.4	0.4		4.9
SEC 75-h	4.1	0.4	0.4	0.0	4.9
SEC 75-i	4.1	0.4	0.4		4.9
SEC 75-h w/ 3/4 dis (RGD75)	4.1	0.4	0.4	0.0	4.9
SEC 80-a	4.1	0.4	0.2	0.0	4.7
SEC 89	4.1	0.4	0.2	0.0	4.7
SEC 89-a	4.1	0.4	0.2		4.7
SEC 89-b	4.1	0.4	0.2		4.7
SEC 89-b(m)	4.1	0.4	0.2		4.7
SEC 89-d	4.1	0.4	0.2		4.7
SEC 89-d(m)	4.1	0.4	0.2		4.7
SEC 89-e, ... t, 89vr	4.1	0.4	0.2		4.7
SEC 89-ts	4.1	0.4	0.2		4.7
SEC 551	4.1	0.4	0.2		4.7
SEC 551-e	4.1	0.4	0.2		4.7
SEC 551-ee	4.1	0.4	0.2		4.7
SEC 552	4.1	0.4	0.2		4.7
SEC 553	4.1	0.4	0.2		4.7
SEC 553b	4.1	0.4	0.2		4.7
SEC 89-sa, -sp, 89v	4.1	0.4	0.2		4.7

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.0
5% ITHP	0.0
8% ITHP	0.0

ERS TIER 2 FINAL RATES  
(as a percent)  
FYB 4/1/02 for fiscal 2004

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	4.1	0.4	0.4		4.9
SEC 75-c,-e	4.1	0.4	0.4		4.9
SEC 75-g	4.1	0.4	0.4		4.9
SEC 75-h	4.1	0.4	0.4	0.0	4.9
SEC 75-i	4.1	0.4	0.4		4.9
SEC 75-h w/ 3/4 dis (RGD75)	4.1	0.4	0.4	0.0	4.9
U.C.P.O.	4.1	0.4	0.4	0.0	4.9
SEC 80-a	4.1	0.4	0.2	0.0	4.7
SEC 89	4.1	0.4	0.2	0.0	4.7
SEC 89-a	4.1	0.4	0.2		4.7
SEC 89-b	4.1	0.4	0.2		4.7
SEC 89-b(m)	4.1	0.4	0.2		4.7
SEC 89-d	11.2	0.4	0.2		11.8
SEC 89-d(m)	11.7	0.4	0.2		12.3
SEC 89-e,...s	7.6	0.4	0.2		8.2
SEC 89-p post 3/31/98 elections, 89t, 89vr	4.1	0.4	0.2		4.7
SEC 89-ts	4.1	0.4	0.2		4.7
SEC 551	4.1	0.4	0.2		4.7
SEC 551-e	4.1	0.4	0.2		4.7
SEC 551-ee	4.1	0.4	0.2		4.7
SEC 552	4.1	0.4	0.2		4.7
SEC 553	4.1	0.4	0.2		4.7
SEC 553b	4.1	0.4	0.2		4.7
SEC 89-sa, -sp, 89v	4.1	0.4	0.2		4.7
TEACHERS & COM. COL.(ADD'L RATE)	0.0	N/A	N/A		0.0

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.0
5% ITHP	0.0
8% ITHP	0.0

## ERS TIER 3&amp;4 FINAL RATES

(as a percent)

FYB 4/1/02 for fiscal 2004

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
TIER 3					
ARTICLE 14 & 15 REGULAR STATE	4.1	0.4	0.4	0.0	4.9
ARTICLE 14 & 15 REGULAR NON-STATE	4.1	0.4	0.4		4.9
Regular w/ 3/4 dis (RGD75)	4.1	0.4	0.4	0.0	4.9
U.C.P.O.	4.1	0.4	0.4	0.0	4.9
ARTICLE 14 CORRECTION OFFICER	4.1	0.4	0.2		4.7
SEC 89-e, ...s	4.7	0.4	0.2		5.3
SEC 89-p post 3/31/98 elections, 89t, 89vr, 89sp	4.1	0.4	0.2		4.7
SEC 89-ts	4.1	0.4	0.2		4.7
SEC 551	4.1	0.4	0.2		4.7
SEC 551-e	4.1	0.4	0.2		4.7
SEC 551-ee	4.1	0.4	0.2		4.7
SEC 552	4.1	0.4	0.2		4.7
SEC 553	4.1	0.4	0.2		4.7
SEC 553b	4.1	0.4	0.2		4.7
SEC 89-sa, 89v	4.1	0.4	0.2		4.7
SEC 604pr, rs	4.1	0.4	0.2		4.7
West. Co. Investigators	4.1	0.4	0.2		4.7
TEACHERS & COM. COL. (ADD'L RATE)	0.0	N/A	N/A		0.0

## OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.0
COUNTY 75% IPOD	0.0

\*\*\*\*\*  
EMPLOYEE'S  
RETIREMENT SYSTEM  
\*\*\*\*\*  
FISCAL YEAR  
BEGINNING 4/1/03  
ACTUARIAL VALUATION  
FOR 12/15/04 BILLING  
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INTEREST AND DISCOUNT FACTORS, AND ASSUMPTIONS  
ERS FYB 4/1/03

\*\*\*\*\* INTEREST AND DISCOUNT FACTORS \*\*\*\*\*

MONTHS	INTEREST FACTORS	DISCOUNT FACTORS
1	1.006434	0.993607
2.5	1.016163	0.984094
3.5	1.022701	0.977803
6	1.039230	0.962250
8.5	1.056027	0.946945
11	1.073096	0.931883

\*\*\*\*\* ASSUMPTIONS \*\*\*\*\*

THE VARIOUS MULTIPLE DECREMENT AND SALARY SCALE TABLES ARE THOSE ADOPTED AS A RESULT OF THE 2000 5-YEAR EXPERIENCE STUDY OF THE SYSTEMS. HOWEVER, AFTER REVIEWING RECENT EXPERIENCE, THE REGULAR PLANS SALARY SCALE WAS REDUCED BY .5% TO CONFORM WITH EXPECTATIONS.

INTEREST RATE 8.0%

SALARY SCALE (1 year expected increase)

Regular Plans	5.4%
Special Plans	6.9%

INFLATION - BOTH THE INTEREST RATE AND THE SALARY SCALE ASSUMPTION REFLECT 3.0% ANNUAL INFLATION.

COMP = V \* P \* (1 + Salary Scale)  
FYB

ACTUARIAL PRESENT VALUE OF PLAN BENEFITS  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN	SERVICE	VESTING	RETURN OF CONTRIBUTIONS	ACCIDENTAL DISABILITY
<b>TIER 1</b>				
Contributory	\$1,326,981	\$11,699		\$3,210
75-c	23,793,635	333,015		34,342
75-e	6,045,554	71,407		9,671
75-g	103,207,398	1,410,016		126,729
75-h & i	9,722,643,451	158,626,754		11,783,395
75-h w/ 3/4 dis	21,479,235	392,663		266,667
80-a	44,149,488	1,871		468,790
89	246,282,710	957,695		3,599,844
89-a	7,309,236	27,385		104,544
89-b	19,018,042	0		219,912
89-b(m)	12,073,782	37,205		189,230
89-d	692,119	0		16,071
89-d(m)	7,231,182	0		130,700
89-e, ..., ts, 89vr	89,592,605	353,447		1,397,842
551	1,942,183	16,265		45,682
552	3,079,257	0		51,240
553	19,729,954	30,125		328,310
89-sa, -sp, 89v	31,003,038	30,511		422,858
<b>TIER 1 TOTALS</b>	<b>\$10,360,599,850</b>	<b>\$162,300,058</b>		<b>\$19,199,037</b>
<b>TIER 2</b>				
Contributory	\$821,652	\$22,187		\$4,683
75-c & e	24,475,477	818,453		76,251
75-g	63,350,672	2,218,937		169,896
75-h & i	5,281,302,466	200,530,519		13,507,243
75-h w/ 3/4 dis	3,651,490	119,345		90,900
U.C.P.O.	120,069,279	3,496,592		258,200
80-a	1,860,484	6,516		39,673
89	191,870,086	1,071,370		3,681,041
89-a	499,594	50,953		19,193
89-b	5,621,611	237,924		123,539
89-b(m)	1,998,360	121,395		53,890
89-d	743,427	0		18,774
89-d(m)	955,973	0		7,688
89-e, ..., ts, 89vr	71,316,938	245,455		1,613,555
551	6,470,951	19,918		160,274
551-e	1,233,728	0		30,004
552	4,877,449	0		112,651
553	27,673,948	9,567		600,782
89-sa, -sp, 89v	12,071,546	0		215,618
<b>TIER 2 TOTALS</b>	<b>\$5,820,865,131</b>	<b>\$208,969,131</b>		<b>\$20,783,855</b>
<b>TIER 3 and 4</b>				
ART 14 Corr. Officers	\$3,478,135,656	\$186,043,266	\$9,792,066	\$112,600,682
ART 14 & 15 Regular	34,654,490,744	2,214,475,340	218,574,429	186,944,748
ART 14 & 15 Reg w/ 3/4 dis	45,531,939	3,297,188	233,459	1,479,347
U.C.P.O.	729,994,689	51,796,597	3,980,068	52,440,810
89-e, ..., ts, 89vr, 89sp	1,439,791,527	85,593,977	4,251,849	17,577,464
551	58,358,653	2,293,049	135,328	6,070,105
551-e	7,178,224	163,904	12,509	532,448
552	97,358,991	993,963	176,048	6,665,198
553	305,119,584	3,848,440	571,554	21,612,425
West. Co. Investigators	8,641,030	192,377	18,256	40,104
604pr, rs	7,799,039	91,599	13,616	24,755
89-sa, 89v	34,877,418	1,442,043	71,706	211,520
<b>TIER 3 and 4 TOTALS</b>	<b>\$40,867,277,494</b>	<b>\$2,550,231,743</b>	<b>\$237,830,888</b>	<b>\$406,199,606</b>
<b>GRAND TOTAL</b>	<b>\$57,048,742,475</b>	<b>\$2,921,500,932</b>	<b>\$237,830,888</b>	<b>\$446,182,498</b>

ACTUARIAL PRESENT VALUE OF PLAN BENEFITS  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN	ORDINARY DISABILITY	ACCIDENTAL DEATH	COLA	TOTAL PVB
<b>TIER 1</b>				
Contributory	\$8,493	\$94	\$88,674	\$1,439,151
75-c	122,008	962	1,280,194	25,564,156
75-e	26,883	273	340,564	6,494,352
75-g	453,178	3,560	4,320,195	109,521,076
75-h & i	47,973,293	327,708	314,704,477	10,256,059,078
75-h w/ 3/4 dis	118,396	699	542,468	22,800,128
80-a	384	2,267	809,460	45,432,260
89	769,007	17,511	6,117,270	257,744,037
89-a	19,633	463	190,052	7,651,313
89-b	0	992	487,907	19,726,853
89-b(m)	33,763	979	290,232	12,625,191
89-d	0	88	8,105	716,383
89-d(m)	0	683	90,575	7,453,140
89-e,....,ts, 89vr	244,941	6,776	1,975,185	93,570,796
551	4,392	135	60,249	2,068,906
552	0	242	84,568	3,215,307
553	11,840	1,348	418,747	20,520,324
89-sa,-sp, 89v	17,090	1,997	576,698	32,052,192
<b>TIER 1 TOTALS</b>	<b>\$49,803,301</b>	<b>\$366,777</b>	<b>\$332,385,620</b>	<b>\$10,924,654,643</b>
<b>TIER 2</b>				
Contributory	17,282	134	61,747	927,685
75-c & e	317,547	2,117	1,278,883	26,968,728
75-g	737,468	4,728	2,287,927	68,769,628
75-h & i	63,041,484	373,860	156,528,457	5,715,284,029
75-h w/ 3/4 dis	37,337	240	87,507	3,986,819
U.C.P.O.	1,087,259	7,173	2,411,374	127,329,877
80-a	3,485	265	30,743	1,941,166
89	840,054	21,671	4,893,026	202,377,248
89-a	32,994	120	20,206	623,060
89-b	179,106	630	170,577	6,333,387
89-b(m)	96,714	305	66,729	2,337,393
89-d	0	113	15,871	778,185
89-d(m)	0	33	20,398	984,092
89-e,....,ts, 89vr	207,327	10,094	1,611,626	75,004,995
551	4,674	847	200,192	6,856,856
551-e	0	205	31,273	1,295,210
552	0	655	137,354	5,128,109
553	2,862	3,529	551,270	28,841,958
89-sa,-sp, 89v	0	1,171	237,672	12,526,007
<b>TIER 2 TOTALS</b>	<b>\$66,605,593</b>	<b>\$427,890</b>	<b>\$170,642,832</b>	<b>\$6,288,294,432</b>
<b>TIER 3 and 4</b>				
ART 14 Corr. Officers	122,020,856	3,324,816	93,305,348	4,005,222,690
ART 14 & 15 Regular	876,193,034	8,658,367	1,453,870,252	39,613,206,914
ART 14 & 15 Reg w/ 3/4 dis	1,309,394	10,889	1,422,742	53,284,958
U.C.P.O.	21,350,316	186,318	21,856,360	881,605,158
89-e,....,ts, 89vr, 89sp	39,838,674	1,189,362	30,895,026	1,619,137,879
551	808,231	50,132	1,505,221	69,220,719
551-e	59,550	5,117	202,137	8,153,889
552	558,989	74,493	2,354,096	108,181,778
553	1,936,963	215,654	5,229,431	338,534,051
West. Co. Investigators	96,650	5,473	115,843	9,109,733
604pr, rs	54,894	2,866	97,347	8,084,116
89-sa, 89v	816,635	28,111	546,192	37,993,625
<b>TIER 3 and 4 TOTALS</b>	<b>\$1,065,044,186</b>	<b>\$13,751,598</b>	<b>\$1,611,399,995</b>	<b>\$46,751,735,510</b>
<b>GRAND TOTAL</b>	<b>\$1,181,453,080</b>	<b>\$14,546,265</b>	<b>\$2,114,428,447</b>	<b>\$63,964,684,585</b>



PLAN MEMBERS AND THEIR COMPENSATION  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN	MEMBERS	4/1/02-3/31/03 SALARY	PROJECTED COMPENSATION (4/1/03-3/31/04)	PRESENT VALUE PROJECTED COMPENSATION
<b>TIER 1</b>				
Contributory	18	\$558,422	\$440,340	\$1,598,126
75-c	176	5,364,880	4,001,036	16,198,858
75-e	46	1,485,256	1,134,293	4,584,984
75-g	509	19,665,630	15,085,332	59,937,398
75-h & i	33,009	1,693,648,553	1,346,979,867	5,520,298,512
75-h w/ 3/4 dis	53	3,433,235	2,847,732	11,672,765
80-a	92	6,664,349	4,422,766	17,974,700
89	638	41,235,831	33,139,132	137,925,163
89-a	20	1,172,610	946,668	3,967,147
89-b	45	3,028,475	2,499,216	8,568,886
89-b(m)	30	1,970,077	1,695,301	7,655,340
89-d	1	124,649	112,700	661,356
89-d(m)	10	1,160,903	1,036,718	5,210,607
89-e,....,ts, 89vr	208	14,756,102	12,326,134	53,883,393
551	6	337,560	283,298	1,154,616
552	9	507,243	441,504	2,021,169
553	43	3,112,027	2,618,064	11,088,078
89-sa,.-sp, 89v	59	4,864,028	3,886,145	16,093,465
<b>TIER 1 TOTALS</b>	<b>34,972</b>	<b>\$1,803,089,830</b>	<b>\$1,433,896,246</b>	<b>\$5,880,494,563</b>
<b>TIER 2</b>				
Contributory	14	\$438,066	\$384,461	\$2,368,167
75-c & e	208	6,380,333	5,540,424	37,619,635
75-g	338	14,007,844	12,297,318	83,842,694
75-h & i	21,530	1,084,139,928	973,132,645	6,620,245,535
75-h w/ 3/4 dis	11	729,801	640,164	4,240,007
U.C.P.O.	299	22,608,879	20,391,951	126,968,931
80-a	5	287,520	262,185	1,649,058
89	555	34,372,356	29,334,648	147,365,053
89-a	4	133,165	121,728	795,122
89-b	18	1,109,837	1,014,845	5,033,986
89-b(m)	8	408,211	380,467	2,240,977
89-d	2	139,572	126,223	779,053
89-d(m)	2	168,834	84,223	281,135
89-e,....,ts, 89vr	192	13,095,653	11,573,563	65,874,491
551	23	1,230,364	1,091,516	5,906,968
551-e	4	221,834	202,424	1,254,034
552	16	899,720	803,208	4,609,458
553	66	4,615,957	4,173,915	24,171,955
89-sa,.-sp, 89v	26	2,009,114	1,736,883	8,551,263
<b>TIER 2 TOTALS</b>	<b>23,321</b>	<b>\$1,186,996,988</b>	<b>\$1,063,292,791</b>	<b>\$7,143,797,522</b>
<b>TIER 3 and 4</b>				
ART 14 Corr. Officers	21,131	\$1,073,103,606	\$1,027,673,297	\$11,599,068,956
ART 14 & 15 Regular	407,644	14,657,455,926	13,348,002,984	136,120,682,887
ART 14 & 15 Reg w/ 3/4 dis	332	16,583,203	15,474,675	164,375,629
U.C.P.O.	5,196	295,124,412	273,469,543	2,926,483,032
89-e,....,ts, 89vr, 89sp	7,937	443,772,458	426,978,063	5,562,123,335
551	350	17,328,645	16,739,639	218,327,030
551-e	41	1,831,917	1,729,495	21,987,116
552	530	25,630,939	24,720,613	319,230,804
553	1,234	74,341,851	71,680,166	950,612,723
West. Co. Investigators	24	2,386,414	2,270,847	25,355,674
604pr, rs	17	1,705,725	1,536,567	14,659,551
89-sa, 89v	143	9,560,710	9,318,140	128,230,476
<b>TIER 3 and 4 TOTALS</b>	<b>444,579</b>	<b>\$16,618,825,806</b>	<b>\$15,219,594,029</b>	<b>\$158,051,137,213</b>
<b>GRAND TOTAL</b>	<b>502,872</b>	<b>\$19,608,912,624</b>	<b>\$17,716,783,066</b>	<b>\$171,075,429,298</b>

PRESENT VALUE OF ORDINARY DEATH BENEFITS OVER \$50,000  
AND SICK LEAVE BENEFITS  
ERS FYB 4/1/03 for FYE 3/31/05

\*\*\*\*\* DEATH BENEFITS OVER \$50,000 \*\*\*\*\*

TIER 1		
CONTRIBUTORY		\$17,313
SEC 75-c		381,524
SEC 75-e		103,321
SEC 75-g		1,632,847
SEC 75-h,-i		155,845,765
75h w/ 3/4 dis		343,772
SEC 80-a		1,078,013
SEC 89		2,053,104
SEC 89-a		143,225
SEC 89-b		241,436
SEC 89-b(m)		241,525
SEC 89-d		18,006
SEC 89-d(m)		179,626
SEC 89-e,-...,-ts, 89vr		2,094,811
SEC 551		45,075
SEC 551E		0
SEC 552		63,102
SEC 553		443,024
SEC 89-sa,-sp, 89v		<u>789,345</u>
SUB-TOTAL		\$165,714,834
	TIER 2	TIERS 3 & 4
DEATH BEN 1	15,201,343	41,455,711
DEATH BEN 2	55,383,708	814,236,484
DEATH BEN O	<u>1,495,088</u>	<u>76,373,269</u>
SUB-TOTAL	\$72,080,139	\$932,065,464
	TOTAL	\$1,169,860,437

\*\*\*\*\* POST RETIREMENT DEATH BENEFITS OVER \$50,000 \*\*\*\*\*

	TIER 2	TIERS 3 & 4
SERVICE	5,000,249	48,973,079
ORD. DIS	195,641	3,777,247
ACC. DIS	<u>47,348</u>	<u>700,594</u>
SUB TOTAL	\$5,243,238	\$53,450,920
	TOTAL	\$58,694,158

\*\*\*\*\* SICK LEAVE BENEFITS \*\*\*\*\*

TIER 1	\$81,910,806
TIER 2	46,547,260
TIERS 3 & 4	<u>288,968,256</u>
TOTAL	\$417,426,322

PRESENT VALUE OF INACTIVE AND  
PENDING RETIREMENT BENEFITS  
ERS FYB 4/1/03 for FYE 3/31/05

	MEMBERS	LIABILITY	SALARY BASE
<b>INACTIVES</b>			
TIER 1	7,744	\$494,963,097	\$147,683,269
TIER 2	4,913	267,091,457	126,572,489
TIER 3 & 4	<u>85,025</u>	<u>1,129,307,193</u>	<u>1,644,693,959</u>
TOTAL	97,682	\$1,891,361,747	\$1,918,949,717
<b>PENDING RETIREMENTS</b>			
TIER 1			
STATE SERVICE	4,368	\$1,780,176,808	\$236,592,149
NON-STATE SERV	2,874	1,018,465,873	143,284,692
ACC DISABILITY	3	611,658	112,366
ORD DISABILITY	<u>17</u>	<u>3,049,817</u>	<u>578,160</u>
SUB TOTAL	7,262	\$2,802,304,156	\$380,567,367
TIER 2			
STATE SERVICE	934	312,084,886	\$50,075,905
NON-STATE SERV	910	264,786,783	43,255,777
ACC DISABILITY	2	337,616	61,171
ORD DISABILITY	<u>21</u>	<u>3,119,673</u>	<u>672,759</u>
SUB TOTAL	1,867	\$580,328,958	\$94,065,612
TIERS 3 & 4			
STATE SERVICE	1,621	285,733,970	\$74,690,308
NON-STATE SERV	2,783	360,518,663	106,910,737
ACC DISABILITY	8	1,179,851	332,820
ORD DISABILITY	<u>113</u>	<u>11,042,948</u>	<u>3,180,422</u>
SUB TOTAL	4,525	\$658,475,432	\$185,114,287
TOTAL	13,654	\$4,041,108,546	\$659,747,266

RATES AND PRESENT VALUE OF LATE START CONTRIBUTIONS  
ERS FYB 4/1/03 for FYE 3/31/05

\*\*\*\*\* PRESENT VALUE OF LATE START CHARGES \*\*\*\*\*

PV LATE START CHARGE = LATE START RATE \* (PV PROJ COMP - COMP)\* 3.5 MO INT

PLAN	LATE START RATE	PV PROJECTED COMPENSATION	COMPENSATION	PV LATE START CHARGES
TIER 2 89-d	0.071	779,053	126,223	47,403
TIER 2 89-d(m)	0.076	281,135	84,223	15,305
TIER 2 89-e,..	0.035	52,908,331	9,295,524	1,561,100
TIER 4 89-e,..	0.006	4,813,571,165	369,515,232	<u>27,269,643</u>
		TOTAL		\$28,893,451

FIVE YEAR MOVING AVERAGE VALUE OF INVESTMENTS  
ERS FYB 4/1/03 for FYE 3/31/05

FISCAL YEAR ENDED	MARKET VALUE	NET PURCHASES
3/31/99	72,649,451,000	
3/31/00	91,847,934,000	948,625,000
3/31/01	74,299,380,796	(635,449,000)
3/31/02	76,271,638,275	1,774,957,630
3/31/03	61,083,867,873	2,305,459,725

AVERAGE MARKET VALUE OF INVESTMENTS FOR ERS ONLY =

$$\text{ERS MV}_{03} - .8 \times \text{ERS UG}_{03} - .6 \times \text{ERS UG}_{02} - .4 \times \text{ERS UG}_{01} - .2 \times \text{ERS UG}_{00} = 75,457,213,362$$

WHERE  $\text{ERS MV}_{03} = \text{TOTAL MARKET VALUE} \times 2003 \% \text{ OF INVESTMENTS FOR ERS}$   
 $= 51,706,516,813$

$\text{UG} = (\text{AG} - \text{EG}) \times \% \text{ OF INVESTMENTS FOR ERS}$

$\text{AG} = \text{ACTUAL GAIN} = \text{MV}_T - \text{MV}_{T-1} - (\text{PURCHASES}_T - \text{SALES}_T)$  AND

$\text{EG} = \text{EXPECTED GAIN, ASSUMING A 7% INCREASE IN MARKET VALUE, OMITTING ANY DIVIDEND PAYMENTS}$

$$= .07 \times \text{MV}_{T-1} - (\text{SALES}_T - \text{PURCHASES}_T) \times (1.07 - 1)$$

	% OF INVESTMENTS	AG	EG	UG
3/31/00	84.2761	18,249,858,000	5,118,101,900	11,066,931,903
3/31/01	84.4687	(16,913,104,204)	6,407,490,823	(19,698,603,452)
3/31/02	84.5461	197,299,849	5,262,029,475	(4,282,031,374)
3/31/03	84.6484	(17,493,230,127)	5,418,341,037	(19,394,278,405)

THIS ERS ACTUARIAL MARKET VALUE OF INVESTMENTS IS FURTHER CONSTRAINED TO BE WITHIN + OR - 20% OF THE 2003 ERS MARKET VALUE OF INVESTMENTS.

80% OF 2003 ERS MARKET VALUE = \$41,365,213,450

120% OF 2003 ERS MARKET VALUE = \$62,047,820,176

ERS ACTUARIAL VALUE OF INVESTMENTS, CONSTRAINED TO BE WITHIN + OR - 20% OF 2003 ERS MARKET VALUE, IS \$62,047,820,176

ERS ACTUARIAL VALUE OF INVESTMENTS 62,047,820,176  
 - ERS MARKET VALUE OF INVESTMENTS - 51,706,516,813  
 = SMOOTHING ADJUSTMENT 10,341,303,363

ERS PENSION ACCUMULATION FUND 41,363,852,674  
 + SMOOTHING ADJUSTMENT 10,341,303,363  
 = ERS PENSION ACCUMULATION FUND FOR VALUATION BALANCE SHEET 51,705,156,037

*if 120% all 108-90 = 18*

*16.6  
51.7 + 18 = 69.3*

PENSIONERS AND BENEFICIARIES  
ERS FYB 4/1/03 for FYE 3/31/05

	ANNUAL ALLOWANCE			ORDINARY DEATH BENEFIT
	<u>NUMBER</u>	<u>ANNUITY</u>	<u>PENSION</u>	
<u>SERVICE BENEFITS</u>				
PENSIONERS	244,521	23,554,062	3,172,877,542	
BENEFICIARIES	20,740	3,687,424	133,714,197	
SUB TOTAL	265,261	27,241,486	3,306,591,739	
<u>DISABILITY BENEFITS</u>				
PENSIONERS	18,123	386,239	188,456,969	
BENEFICIARIES	2,731	87,019	17,249,048	
SUB TOTAL	20,854	473,258	205,706,017	
ACCIDENTAL DEATH BENEFICIARIES	239	0	3,835,988	
DESIGNATED ANNUITANTS	986	0	0	5,067,880
GRAND TOTAL	287,340	27,714,744	3,516,133,744	5,067,880

## RESERVES

	RESERVES			SPECIAL RESERVE FUND
	<u>COLA</u>	<u>ANNUITY</u>	<u>PENSION</u>	
<u>SERVICE BENEFITS</u>				
PENSIONERS	4,627,048,852	164,613,013	29,183,435,543	
BENEFICIARIES	290,053,247	22,657,111	1,054,255,807	
SUB TOTAL	4,917,102,099	187,270,124	30,237,691,350	
<u>DISABILITY BENEFITS</u>				
PENSIONERS	407,909,929	2,631,824	1,750,071,154	
BENEFICIARIES	31,060,846	658,092	166,434,121	
SUB TOTAL	438,970,775	3,289,916	1,916,505,275	
ACCIDENTAL DEATH BENEFICIARIES	8,734,398	0	44,491,629	
DESIGNATED ANNUITANTS	0	0	0	40,789,061
SUB TOTAL	5,364,807,272	190,560,040	32,198,688,254	40,789,061
POST RETIREMENT DEATH (excess of \$50,000)			159,870	
GRAND TOTAL	5,364,807,272	190,560,040	32,198,848,124	40,789,061

## \*\*\*\*\* ACTUARIAL BALANCE SHEET \*\*\*\*\*

ACTUARIAL PRESENT VALUE OF BENEFITS  
ERS FYB 4/1/03 for FYE 3/31/05

## PENSIONERS AND BENEFICIARIES

ANNUITY RESERVE FUND	\$190,560,040	
PENSION RESERVE FUND	32,198,848,124	
SPECIAL RESERVE FOR D. A.	40,789,061	
COLA	5,364,807,272	
TOTAL P.V. OF PENSIONER BENEFITS		\$37,795,004,497

## ACTIVE MEMBERS

ANNUITY SAVINGS FUND	28,341,347	
BENEFITS:		
MEMBER SERVICE BENEFITS	57,048,742,475	
VESTING BENEFITS	2,921,500,932	
ACCIDENTAL DISABILITY BENEFITS	446,182,498	
ORDINARY DISABILITY BENEFITS	1,181,453,080	
ACCIDENTAL DEATH BENEFITS	14,546,265	
DEATH BENEFITS OVER \$50,000	1,169,860,437	
POST RETIREMENT DEATH BENEFITS	58,694,158	
WITHDRAWAL OF TIERS 3 & 4	237,830,888	
MEMBER CONTRIBUTIONS		
SICK LEAVE BENEFITS	417,426,322	
INACTIVES	1,891,361,747	
COLA - ACTIVE BILLABLES	2,114,428,447	
PENDING RETIREMENTS	4,041,108,546	
PENDING RETIREMENTS - RIP	200,000,000	
RESTORATIONS	8,196,643	
PENDING TRANSFER-IN RESERVES	34,689,934	
TIER 3 AND 4 NON-VESTED INACTIVE	43,412,967	
MEMBER CONTRIBUTIONS		
PUBLIC SERVICE BILL	100,000,000	
TOTAL PV BENEFITS FOR ACTIVE MEMBERS		\$71,957,776,686

## MISCELLANEOUS (ALL OTHER FUNDS)

LIABILITIES PAYABLE	\$340,078,343	
LOAN INSURANCE RESERVE	1,272,271	
TOTAL MISCELLANEOUS LIABILITY		\$341,350,614

## TOTAL ACTUARIAL PRESENT VALUE OF BENEFITS

\$110,094,131,797

## \*\*\*\*\* ACTUARIAL BALANCE SHEET \*\*\*\*\*

ACTUARIAL PRESENT VALUE OF ASSETS  
ERS FYB 4/1/03 for FYE 3/31/05

## PRESENT ASSETS OF SYSTEM \*

TIERS 3 & 4 CONTRIBUTION FUND		\$5,881,415,699
ANNUITY SAVINGS FUND		28,341,347
ANNUITY RESERVE FUND		190,560,040
PENSION RESERVE FUND		32,198,848,124
SPECIAL RESERVE FOR DESIGNATED ANNUITANTS		40,789,061
PENSION ACCUMULATION FUND		51,705,156,037
ALL OTHER FUNDS		
LIABILITIES PAYABLE	340,078,343	
LOAN INSURANCE RESERVE	1,272,271	
TOTAL OTHER FUNDS		\$341,350,614
TOTAL PRESENT VALUATION ASSETS		\$90,386,460,922

ACTUARIAL PRESENT VALUE OF PROSPECTIVE CONTRIBUTIONS  
PAYABLE BY EMPLOYERS TO PENSION ACCUMULATION FUND

NORMAL CONTRIBUTIONS	18,112,160,227	
LATE START CONTRIBUTIONS	28,893,451	
RECEIVABLE - 12/15/03 EMPLOYER BILLING	759,936,758	
TOTAL CONTRIBUTIONS		18,900,990,436
APV OF FUTURE TIERS 3 & 4 MEMBER CONTRIBUTIONS		806,680,439
TOTAL PROSPECTIVE CONTRIBUTIONS		19,707,670,875
TOTAL ACTUARIAL PRESENT VALUE OF ASSETS		\$110,094,131,797

\* SEE PAGE 36



CALCULATION OF INDICES  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN PV BENEFITS \* 3.5 MO. DISCOUNT

PLAN NEW ENTRANT RATE =  $\frac{\text{PLAN PV BENEFITS * 3.5 MO. DISCOUNT}}{\text{PLAN PV COMPENSATION}}$

PLAN NEW ENTRANT RATE

PLAN INDEX =  $\frac{\text{PLAN NEW ENTRANT RATE}}{\text{TIER 1 CONTRIBUTORY NEW ENTRANT RATE}}$

PLAN	PRESENT VALUE OF		NEW	INDEX
	BENEFITS	COMPENSATION	ENTRANT RATE	
<b>TIER 1</b>				
Contributory	611,642,468	8,067,885,396	0.074129	1.000000
75-c	1,154,599,494	8,067,885,396	0.139934	1.887703
75-e	1,154,599,494	8,067,885,396	0.139934	1.887703
75-g	1,217,484,945	8,067,885,396	0.147555	1.990517
75-h & i	1,264,637,204	8,067,885,396	0.153270	2.067609
75-h w/ 3/4 dis	1,315,198,286	7,931,189,347	0.162145	2.187333
80-a	133,713,427	591,362,908	0.221092	2.982518
89	107,057,064	611,474,408	0.171194	2.309400
89-a	106,573,333	628,995,317	0.165673	2.234926
89-b	107,185,277	591,086,166	0.177311	2.391919
89-b(m)	114,307,962	614,581,843	0.181865	2.453346
89-d	107,240,741	596,401,964	0.175822	2.371826
89-d(m)	114,256,441	619,494,470	0.180341	2.432794
89-e, ..., ts, 89vr	108,201,598	615,683,282	0.171841	2.318133
551	104,000,364	626,778,142	0.162245	2.188684
551-e	105,906,201	624,021,740	0.165948	2.238637
551-ee				2.328183
552	111,145,658	596,401,964	0.182224	2.458190
553	119,673,716	619,494,470	0.188892	2.548141
553b				2.650066
89-sa, -sp, 89v	109,798,089	615,683,282	0.174377	2.352337
Sick leave	10,096,009	8,067,885,396	0.001224	0.016506
<b>TIER 2</b>				
Contributory	601,594,666	9,174,399,705	0.064118	0.864945
75-c & e	1,093,512,942	9,174,399,705	0.116546	1.572202
75-g	1,169,291,116	9,174,399,705	0.124622	1.681152
75-h & i	1,217,008,560	9,174,399,705	0.129708	1.749758
75-h w/ 3/4 dis	1,276,724,148	8,986,186,511	0.138923	1.874061
U.C.P.O.	1,217,008,560	9,174,399,705	0.129708	1.749758
80-a	132,257,933	591,540,909	0.218619	2.949165
89	107,493,013	611,474,408	0.171891	2.318804
89-a	101,231,411	640,441,758	0.154556	2.084960
89-b	94,225,400	632,866,992	0.145582	1.963892
89-b(m)	98,016,135	632,343,069	0.151564	2.044593
89-d	105,119,100	596,401,964	0.172343	2.324902
89-d(m)	112,126,355	619,494,470	0.176979	2.387439
89-e, ..., ts, 89vr	105,572,827	615,683,282	0.167666	2.261814
551	100,752,998	626,778,142	0.157179	2.120344
551-e	103,454,104	624,021,740	0.162106	2.186805
551-ee				2.274277
552	109,068,553	596,401,964	0.178818	2.412251
553	117,528,086	619,494,470	0.185505	2.502455
553b				2.602553
89-sa, -sp, 89v	109,052,329	615,683,282	0.173192	2.336360
Sick leave	12,137,993	9,174,399,705	0.001294	0.017451
<b>TIER 3 and 4</b>				
ART. 14 & 15 REGULAR	936,724,490	9,193,501,501	0.099628	1.343981
Regular w/ 3/4 dis	972,706,978	9,116,246,929	0.104332	1.407434
U.C.P.O.	1,012,372,000	9,003,963,752	0.109941	1.483093
ART. 14 CORR OFF	84,165,660	635,152,431	0.129571	1.747910
89-e, ..., ts, 89vr, 89sp	84,876,489	645,842,091	0.128503	1.733497
551	91,554,296	626,778,142	0.142829	1.926757
551-e	94,264,798	624,021,740	0.147707	1.992562
551-ee				2.072265
552	100,120,340	596,401,964	0.164148	2.214345
553	109,128,423	619,494,470	0.172247	2.323606
553b				2.416550
89-sa, 89v	87,650,225	645,842,091	0.132702	1.790147
604pr, rs	104,110,741	635,255,639	0.160250	2.161768
West. Co. Investigators	94,326,594	610,957,372	0.150964	2.038504
Sick leave	11,408,331	9,193,501,501	0.001213	0.016368
County 75% IPOD	54,978,776	14,314,088,321	0.003756	0.050663

INDEXED PRESENT VALUE PROJECTED FYE 3/31/04 COMPENSATION  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN	PRESENT VALUE 2004 PROJ. COMP.	INDEX	INDEXED P.V. PROJ. COMP.
<b>TIER 1</b>			
Contributory	\$1,598,126	1.000000	\$1,598,126
75-c	16,198,858	1.887703	30,578,637
75-e	4,584,984	1.887703	8,655,089
75-g	59,937,398	1.990517	119,306,431
75-h & i	5,520,298,512	2.067609	11,413,816,474
75-h w/ 3/4 dis	11,672,765	2.187333	25,532,230
80-a	17,974,700	2.982518	53,609,861
89	137,925,163	2.309400	318,524,350
89-a	3,967,147	2.234926	8,866,282
89-b	8,568,886	2.391919	20,496,079
89-b(m)	7,655,340	2.453346	18,781,200
89-d	661,356	2.371826	1,568,621
89-d(m)	5,210,607	2.432794	12,676,334
89-e.....ts, 89vr	53,883,393	2.318133	124,908,886
551	1,154,616	2.188684	2,527,090
552	2,021,169	2.458190	4,968,418
553	7,429,142	2.548141	18,930,500
553-b	3,658,936	2.650066	9,696,422
89-sa.-sp, 89v	16,093,465	2.352337	37,857,250
Sick Leave	4,909,706,193	0.016506	81,041,525
<b>TIER 1 TOTAL</b>	<b>\$5,880,494,563 *</b>		<b>\$12,313,939,805</b>
<b>TIER 2</b>			
Contributory	\$2,368,167	0.864945	\$2,048,334
75-c & e	37,619,635	1.572202	59,145,667
75-g	83,842,694	1.681152	140,952,345
75-h & i	6,620,245,535	1.749758	11,583,829,617
75-h w/ 3/4 dis	4,240,007	1.874061	7,946,032
UCPO	126,968,931	1.749758	222,164,942
80-a	1,649,058	2.949165	4,863,344
89	147,365,053	2.318804	341,710,673
89-a	795,122	2.084960	1,657,798
89-b	5,033,986	1.963892	9,886,206
89-b(m)	2,240,977	2.044593	4,581,886
89-d	779,053	2.324902	1,811,222
89-d(m)	281,135	2.387439	671,193
89-e.....ts, 89vr	65,874,491	2.261814	148,995,843
551	5,906,968	2.120344	12,524,801
551-e	1,254,034	2.186805	2,742,328
552	4,609,458	2.412251	11,119,172
553	9,000,839	2.502455	22,524,197
553-b	15,171,116	2.602553	39,483,633
89-sa.-sp, 89v	8,551,263	2.336360	19,978,825
Sick Leave	6,071,926,900	0.017451	105,963,883
<b>TIER 2 TOTAL</b>	<b>\$7,143,797,522 *</b>		<b>\$12,744,601,941</b>
<b>TIERS 3 and 4</b>			
ART. 14 & 15 Regular	\$136,120,682,887	1.343981	\$182,943,562,034
Regular w/ 3/4 dis	164,375,629	1.407434	231,347,850
UCPO	2,926,483,032	1.483093	4,340,247,402
ART. 14 Corr. Officers	11,599,068,956	1.747910	20,274,128,127
89-e.....ts, 89vr, 89sp	5,562,123,335	1.733497	9,641,925,350
551	218,327,030	1.926757	420,663,162
551-e	21,987,116	1.992562	43,810,699
552	319,230,804	2.214345	706,887,223
553	350,068,267	2.323606	813,420,812
553-b	600,544,456	2.416550	1,451,245,705
604pr, rs	14,659,551	2.161768	31,690,549
89-sa, 89v	128,230,476	1.790147	229,551,446
West. Co. Investigators	25,355,674	2.036504	51,636,939
County 75% IPOD	2,830,613,771	0.050663	143,408,230
Sick Leave	111,662,147,255	0.016368	1,827,718,168
<b>TIERS 3 &amp; 4 TOTAL</b>	<b>\$158,051,137,213 *</b>		<b>\$223,151,243,696</b>

\* DOES NOT INCLUDE SICK LEAVE

INDEXED PROJECTED FYE 3/31/04 COMPENSATION \*  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN	PROJECTED 2004 COMPENSATION	INDEX	INDEXED PROJECTED COMPENSATION
<b>TIER 1</b>			
71-a	\$440,340	1.000000	\$440,340
75-c	4,001,036	1.887703	7,552,769
75-e	1,134,293	1.887703	2,141,209
75-g	15,085,332	1.990517	30,027,615
75-h & i	1,346,979,867	2.067609	2,785,027,107
75-h w/ 3/4 dis	2,847,732	2.187333	6,228,940
80-a	4,422,766	2.982518	13,190,978
89	33,139,132	2.309400	76,531,506
89-a	946,668	2.234926	2,115,733
89-b	2,499,216	2.391919	5,977,922
89-b(m)	1,695,301	2.453346	4,159,160
89-d	112,700	2.371826	267,305
89-d(m)	1,036,718	2.432794	2,522,121
89-e,....ts, 89vr	12,326,134	2.318133	28,573,621
551	283,298	2.188684	620,050
552	441,504	2.458190	1,085,301
553	1,754,134	2.548141	4,469,781
553-b	863,930	2.650066	2,289,472
89-sa, -sp, 89v	3,886,145	2.352337	9,141,522
Sick Leave	1,199,582,925	0.016506	19,800,784
<b>TIER 1 TOTAL</b>	<b>\$1,433,896,246 **</b>		<b>\$3,002,163,236</b>
<b>TIER 2</b>			
71-a	\$384,461	0.864945	\$332,538
75-c & e	5,540,424	1.572202	8,710,666
75-g	12,297,318	1.681152	20,673,665
75-h & i	973,132,645	1.749758	1,702,746,929
75-h w/ 3/4 dis	640,164	1.874061	1,199,706
UCPO	20,391,951	1.749758	35,680,986
80-a	262,185	2.949165	773,227
89	29,334,648	2.318804	68,021,299
89-a	121,728	2.084960	253,798
89-b	1,014,845	1.963892	1,993,046
89-b(m)	380,467	2.044593	777,900
89-d	126,223	2.324902	293,456
89-d(m)	84,223	2.387439	201,077
89-e,....ts, 89vr	11,573,563	2.261814	26,177,246
551	1,091,516	2.120344	2,314,389
551-e	202,424	2.186805	442,662
552	803,208	2.412251	1,937,540
553	1,554,228	2.502455	3,889,386
553-b	2,619,687	2.602553	6,817,874
89-sa, -sp, 89v	1,736,883	2.336360	4,057,983
Sick Leave	895,855,229	0.017451	15,633,966
<b>TIER 2 TOTAL</b>	<b>\$1,063,292,791 **</b>		<b>\$1,902,929,339</b>
<b>TIERS 3 and 4</b>			
ART. 14 & 15 Regular	\$13,348,002,984	1.343981	\$17,939,457,547
Regular w/ 3/4 dis	15,474,675	1.407434	21,779,584
UCPO	273,469,543	1.483093	405,580,849
ART. 14 Corr. Officers	1,027,673,297	1.747910	1,796,280,389
89-e,....	426,978,063	1.733497	740,165,286
551	16,739,639	1.926757	32,253,219
551-e	1,729,495	1.992562	3,446,127
552	24,720,613	2.214345	54,739,973
553	26,396,608	2.323606	61,335,323
553-b	45,283,558	2.416550	109,429,982
604pr, rs	1,536,567	2.161768	3,321,701
89-sa, 89v	9,318,140	1.790147	16,680,844
West. Co. Investigators	2,270,847	2.036504	4,624,590
County 75% IPOD	235,927,625	0.050663	11,952,872
Sick Leave	10,892,437,787	0.016368	178,290,557
<b>TIERS 3 &amp; 4 TOTAL</b>	<b>\$15,219,594,029 **</b>		<b>\$21,379,338,843</b>
<b>TOTAL ERS</b>	<b>\$17,716,783,066</b>		<b>\$26,284,431,418</b>

\* PROJECTED COMPENSATION EQUALS THE COMPENSATION FOR 3/31/04  
ATTRIBUTABLE TO THE MEMBERS ON ROLL AS OF 3/31/03.

\*\* DOES NOT INCLUDE SICK LEAVE OR COUNTY 75% IPOD

BASIC PLAN'S NORMAL RATE  
ERS FYB 4/1/03 for FYE 3/31/05

	INDEXED P.V. PROJECTED COMP.
TIER 1	\$12,313,939,805
TIER 2	12,744,601,941
TIER 3 and 4	<u>223,151,243,696</u>
TOTAL	\$248,209,785,442

	INDEXED PROJECTED COMP.
TIER 1	\$3,002,163,236
TIER 2	1,902,929,339
TIER 3 and 4	<u>21,379,338,843</u>
TOTAL	\$26,284,431,418

P. V. FUTURE NORMAL CONTRIBUTIONS \$18,112,160,227

BASIC PLAN'S NORMAL RATE

$$\text{BASIC RATE} = \frac{\text{P.V.FUTURE NORMAL CONTRIBUTIONS (3.5 MO. DISCOUNT)}}{\text{INDEXED PRESENT VALUE PROJECTED COMPENSATION} - \text{INDEXED PROJECTED COMPENSATION}}$$

$$= \frac{\$18,112,160,227 * 0.977803}{\$221,925,354,024}$$

$$= 0.079802$$

NORMAL RATES  
ERS FYB 4/1/03 for FYE 3/31/05

PLAN	BASIC RATE (1)	INDEX (2)	REGULAR NORMAL RATE (1) * (2) = (3)	LATE START RATE (4)	BILLING NORMAL RATE (3) + (4)
<b>TIER 1</b>					
Contributory	0.079802	1.000000	0.079802		0.079802
75-c	0.079802	1.887703	0.150642		0.150642
75-e	0.079802	1.887703	0.150642		0.150642
75-g	0.079802	1.990517	0.158847		0.158847
75-h & i	0.079802	2.067609	0.164999		0.164999
75-h w/ 3/4 dis	0.079802	2.187333	0.174554		0.174554
80-a	0.079802	2.982518	0.238011		0.238011
89	0.079802	2.309400	0.184295		0.184295
89-a	0.079802	2.234926	0.178352		0.178352
89-b	0.079802	2.391919	0.190880		0.190880
89-b(m)	0.079802	2.453346	0.195782		0.195782
89-d	0.079802	2.371826	0.189276		0.189276
89-d(m)	0.079802	2.432794	0.194142		0.194142
89-e,....ts, 89vr	0.079802	2.318133	0.184992		0.184992
551	0.079802	2.188684	0.174661		0.174661
551-e	0.079802	2.238637	0.178648		0.178648
551-ee	0.079802	2.328183	0.185794		0.185794
552	0.079802	2.458190	0.196169		0.196169
553	0.079802	2.548141	0.203347		0.203347
553b	0.079802	2.650066	0.211481		0.211481
89-sa,-sp, 89v	0.079802	2.352337	0.187721		0.187721
Sick Leave	0.079802	0.016506	0.001317		0.001317
<b>TIER 2</b>					
Contributory	0.079802	0.864945	0.069024		0.069024
75-c & e	0.079802	1.572202	0.125465		0.125465
75-g	0.079802	1.681152	0.134159		0.134159
75-h & i	0.079802	1.749758	0.139634		0.139634
75-h w/ 3/4 dis	0.079802	1.874061	0.149554		0.149554
UCPO	0.079802	1.749758	0.139634		0.139634
80-a	0.079802	2.949165	0.235349		0.235349
89	0.079802	2.318804	0.185045		0.185045
89-a	0.079802	2.084960	0.166384		0.166384
89-b	0.079802	1.963892	0.156723		0.156723
89-b(m)	0.079802	2.044593	0.163163		0.163163
89-d	0.079802	2.324902	0.185532	0.071	0.256532
89-d(m)	0.079802	2.387439	0.190522	0.076	0.266522
89-e,....pre 4/1/98 elections	0.079802	2.261814	0.180497	0.035	0.215497
89-e,....post 3/31/98 elections			0.180497		0.180497
551	0.079802	2.120344	0.169208		0.169208
551-e	0.079802	2.186805	0.174511		0.174511
551-ee	0.079802	2.274277	0.181492		0.181492
552	0.079802	2.412251	0.192502		0.192502
553	0.079802	2.502455	0.199701		0.199701
553b	0.079802	2.602553	0.207689		0.207689
89-sa,-sp, 89v	0.079802	2.336360	0.186446		0.186446
Sick Leave	0.079802	0.017451	0.001393		0.001393
<b>TIER 3 and 4</b>					
ART. 14 & 15 Regular	0.079802	1.343981	0.107252		0.107252
Regular w/ 3/4 dis	0.079802	1.407434	0.112316		0.112316
UCPO	0.079802	1.483093	0.118354		0.118354
ART. 14 Correction Officers	0.079802	1.747910	0.139487		0.139487
89-e,....pre 4/1/98 elections	0.079802	1.733497	0.138337	0.006	0.144337
89-e,....post 3/31/98 elections			0.138337		0.138337
551	0.079802	1.926757	0.153759		0.153759
551-e	0.079802	1.992562	0.159010		0.159010
551-ee	0.079802	2.072265	0.165371		0.165371
552	0.079802	2.214345	0.176709		0.176709
553	0.079802	2.323606	0.185428		0.185428
553b	0.079802	2.416550	0.192846		0.192846
89-sa, 89v	0.079802	1.790147	0.142857		0.142857
604pr, rs	0.079802	2.161768	0.172513		0.172513
West. Co. Investigators	0.079802	2.036504	0.162517		0.162517
Sick Leave	0.079802	0.016368	0.001306		0.001306
County 75% IPOD	0.079802	0.050663	0.004043		0.004043

ADMINISTRATIVE AND GROUP LIFE INSURANCE RATES  
ERS FYB 4/1/03 FOR FISCAL 2005

ADMINISTRATIVE CONTRIBUTIONS IN 2004 EQUALS RATE TIMES ESTIMATED BILLING SALARY = .004 * 19,510,721,586 =	78,042,886
PAY OFF THE UNDERBILL	-2,782,670
SUBTRACT 2004 EXPENSES	<u>-59,148,899</u>
EQUALS 3/31/04 ESTIMATED ADMINISTRATIVE OVERBILL ACCOUNT	16,111,317

ASSUMING 2005 EXPENSES = 2004 EXPENSES, THE ADMINISTRATIVE CONTRIBUTIONS TO BE BILLED FOR WILL BE \$59,148,899 MINUS THE OVERBILL ACCOUNT = 43,037,582

$$\text{ADMINISTRATIVE RATE} = \frac{\text{TOTAL ADMIN EXPENSE } 43,037,582}{\text{EST. BILLING SALARY } 20,265,001,270} = 0.002124$$

$$= 0.3 \%$$

ESTIMATED BILLING SALARY IS ESTIMATED SALARY TO BE USED IN THE 12/15/04 NON-STATE BILLING AND THE 9/1/04 STATE BILLING.

WE ALWAYS ROUND THE RATE TO THE NEXT HIGHEST TENTH OF A PERCENT SINCE THE ADMINISTRATIVE EXPENSE MUST BE PAID.

\*\*\*\*\* GROUP LIFE INSURANCE RATES \*\*\*\*\*

THE ERS PORTION OF THE GTLI EQUITY IN THE COMMON RETIREMENT FUND ON 4/1/2004 IS ESTIMATED TO BE APPROXIMATELY \$58 MILLION. THE GTLI EQUITY APPRECIATES WITH INTEREST AT THE RATE ACCRUED BY OUR SHORT-TERM INVESTMENT POOL, A NON-VOLATILE INVESTMENT VEHICLE. ON ANY GIVEN DAY, THE AMOUNT PAYABLE FOR OUTSTANDING GTLI BENEFITS ARE ESTIMATED TO BE APPROXIMATELY \$25 MILLION. A GTLI PREMIUM RATE AVERAGING APPROXIMATELY .4% OF BILLING SALARY IS NEEDED TO ENSURE THAT THE GTLI EQUITY DOES NOT GO BELOW THIS AMOUNT PAYABLE BEFORE DECEMBER 15, 2005. THEREFORE, THE .2% PREMIUM FOR SPECIAL PLANS AND .4% PREMIUM FOR ALL OTHER PLANS WILL REMAIN IN EFFECT FOR FISCAL 2005.

ERS TIER 1 FINAL RATES  
(as a percent)  
ERS FYB 4/1/03 for FYE 3/31/05

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	8.0	0.3	0.4		8.7
SEC 75-c	15.1	0.3	0.4		15.8
SEC 75-e	15.1	0.3	0.4		15.8
SEC 75-g	15.9	0.3	0.4		16.6
SEC 75-h	16.5	0.3	0.4	0.1	17.3
SEC 75-i	16.5	0.3	0.4		17.2
SEC 75-h w/ 3/4 dis (RGD75)	17.5	0.3	0.4	0.1	18.3
SEC 80-a	23.8	0.3	0.2	0.1	24.4
SEC 89	18.4	0.3	0.2	0.1	19.0
SEC 89-a	17.8	0.3	0.2		18.3
SEC 89-b	19.1	0.3	0.2		19.6
SEC 89-b(m)	19.6	0.3	0.2		20.1
SEC 89-d	18.9	0.3	0.2		19.4
SEC 89-d(m)	19.4	0.3	0.2		19.9
SEC 89-e,...t, 89vr	18.5	0.3	0.2		19.0
SEC 89-ts	18.5	0.3	0.2		19.0
SEC 551	17.5	0.3	0.2		18.0
SEC 551-e	17.9	0.3	0.2		18.4
SEC 551-ee	18.6	0.3	0.2		19.1
SEC 552	19.6	0.3	0.2		20.1
SEC 553	20.3	0.3	0.2		20.8
SEC 553b	21.1	0.3	0.2		21.6
SEC 89-sa, -sp, 89v	18.8	0.3	0.2		19.3

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.1
5% ITHP	3.5
8% ITHP	5.6

ERS TIER 2 FINAL RATES  
(as a percent)  
ERS FYB 4/1/03 for FYE 3/31/05

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	6.9	0.3	0.4		7.6
SEC 75-c,-e	12.5	0.3	0.4		13.2
SEC 75-g	13.4	0.3	0.4		14.1
SEC 75-h	14.0	0.3	0.4	0.1	14.8
SEC 75-i	14.0	0.3	0.4		14.7
SEC 75-h w/ 3/4 dis (RGD75)	15.0	0.3	0.4	0.1	15.8
U.C.P.O.	14.0	0.3	0.4	0.1	14.8
SEC 80-a	23.5	0.3	0.2	0.1	24.1
SEC 89	18.5	0.3	0.2	0.1	19.1
SEC 89-a	16.6	0.3	0.2		17.1
SEC 89-b	15.7	0.3	0.2		16.2
SEC 89-b(m)	16.3	0.3	0.2		16.8
SEC 89-d	25.7	0.3	0.2		26.2
SEC 89-d(m)	26.7	0.3	0.2		27.2
SEC 89-e,...s	21.5	0.3	0.2		22.0
SEC 89-p post 3/31/98 elections, 89t, 89vr	18.0	0.3	0.2		18.5
SEC 89-ts	18.0	0.3	0.2		18.5
SEC 551	16.9	0.3	0.2		17.4
SEC 551-e	17.5	0.3	0.2		18.0
SEC 551-ee	18.1	0.3	0.2		18.6
SEC 552	19.3	0.3	0.2		19.8
SEC 553	20.0	0.3	0.2		20.5
SEC 553b	20.8	0.3	0.2		21.3
SEC 89-sa, -sp, 89v	18.6	0.3	0.2		19.1
TEACHERS & COM. COL.(ADD'L RATE)	0.1	N/A	N/A		0.1

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.1
5% ITHP	3.5
8% ITHP	5.6



ERS TIER 3&4 FINAL RATES  
(as a percent)  
ERS FYB 4/1/03 for FYE 3/31/05

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
TIER 3					
ARTICLE 14 & 15 REGULAR STATE	10.7	0.3	0.4	0.1	11.5
ARTICLE 14 & 15 REGULAR NON-STATE	10.7	0.3	0.4		11.4
Regular w/ 3/4 dis (RGD75)	11.2	0.3	0.4	0.1	12.0
U.C.P.O.	11.8	0.3	0.4	0.1	12.6
ARTICLE 14 CORRECTION OFFICER	13.9	0.3	0.2		14.4
SEC 89-e, ...s	14.4	0.3	0.2		14.9
SEC 89-p post 3/31/98 elections, 89t, 89vr, 89sp	13.8	0.3	0.2		14.3
SEC 89-ts	13.8	0.3	0.2		14.3
SEC 551	15.4	0.3	0.2		15.9
SEC 551-e	15.9	0.3	0.2		16.4
SEC 551-ee	16.5	0.3	0.2		17.0
SEC 552	17.7	0.3	0.2		18.2
SEC 553	18.5	0.3	0.2		19.0
SEC 553b	19.3	0.3	0.2		19.8
SEC 89-sa, 89v	14.3	0.3	0.2		14.8
SEC 604pr, rs	17.3	0.3	0.2		17.8
West. Co. Investigators	16.3	0.3	0.2		16.8
TEACHERS & COM. COL. (ADD'L RATE)	0.1	N/A	N/A		0.1

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.1
COUNTY 75% IPOD	0.4

## CALCULATION OF FUNDS FOR STUDY PURPOSES

THE 2003 FUNDS WERE ATTRIBUTED TO EACH PLAN BY THE FORMULA

(3.5/12)

PLAN LIABILITIES - (NORMAL RATE)(PV PROJ COMP)(1+i) - PV MEMBER CONTRIBS  
 (does not include ord death benefits) (Tiers 3 & 4 only)

	TIER 1	TIER 2	TIERS 3 & 4
Contributory	1,308,722	760,514	
75-c	23,068,532		
75-e	5,787,981	22,141,633	
75-g	99,784,067	57,266,029	
75-h & i	9,324,538,280	4,769,887,602	
RGD75	20,716,346	3,338,314	34,403,839
U.C.P.O.		109,198,227	527,381,445
80-a	41,056,965	1,544,251	
Correction officers	231,748,084	174,489,044	2,350,574,972
89-a	6,927,702	487,761	
89-b	18,054,094	5,526,536	
89-b(m)	11,092,389	1,963,448	
89-d	588,362	630,365	
89-d(m)	6,418,578	929,314	
89-e,...	83,376,516	62,844,929	832,223,197
551	1,862,662	5,834,660	34,888,906
551-e, -ee		1,062,446	4,435,316
552	2,809,816	4,220,636	50,490,237
553, -b	18,122,174	23,707,744	151,050,600
89-sa,sp	28,962,529	10,895,465	19,259,153
604pr, rs			5,647,606
WEST. CO. C.I.			9,109,733
County 75% IPOD			37,993,625
REGULAR			24,682,574,642
Sick Leave	75,297,936	37,897,056	139,826,988
<b>GRAND TOTAL</b>	<b>44,176,007,969</b>		



ERS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— COUNTIES

	NUMBER	SALARIES	NUMBER	SALARIES
	TIER 1		TIER 2	
AGE 55/60 CONTRIBUTORY				
AGE 55 75-C				
AGE 55 75-E				
AGE 55 75-G				
AGE 55 75-H				
AGE 55 75-I	5,842	\$281,255,072.80	4,210	\$199,072,365.72
REG CO/SHTA 3/4 DIS				
CORR OFF 89				
SHERIFFS 89-A	20	\$1,172,610.09	4	\$133,164.97
SHERIFFS 89-B	45	\$3,028,475.89	18	\$1,109,836.75
SHERIFFS 89-B(M)	30	\$1,970,076.99	8	\$408,210.84
INVESTIGATORS 89-D	1	\$124,649.19	2	\$139,572.38
INVESTIGA. 89-D(M)	10	\$1,160,902.96	2	\$168,833.66
SHERIFFS - 551	6	\$337,560.11	23	\$1,230,363.70
SHERIFFS - 551E			4	\$221,834.37
SHERIFFS - 552	9	\$507,243.17	16	\$899,720.41
SHERIFFS - 553	43	\$3,112,027.44	66	\$4,615,958.78
LEGISLATORS 80-A	5	\$291,306.86		
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH	152	\$11,744,954.45	152	\$10,952,539.64
25YR 1/60 PO,AMT,PAR	59	\$4,864,030.06	25	\$1,958,756.52
<b>SUB-TOTAL</b>	<b>6,222</b>	<b>309,568,910.01</b>	<b>4,530</b>	<b>220,911,157.74</b>
INACTIVE NON-VESTED	11	\$55,227.23	16	\$127,976.69
INACTIVE VESTED	1,522	\$28,936,821.01	1,121	\$27,610,841.74
PENDING RETIREMENTS	1,160	\$59,141,941.28	397	\$20,644,111.07
PENDING DEATHS	12	\$259,701.52	4	\$182,821.80
<b>SUB-TOTAL</b>	<b>2,705</b>	<b>88,393,691.04</b>	<b>1,538</b>	<b>48,565,751.30</b>
<b>TIER TOTAL</b>	<b>8,927</b>	<b>\$397,962,601.05</b>	<b>6,068</b>	<b>\$269,476,909.04</b>
	<b>TIER 3 &amp; 4</b>			
ARTICLE 14 & 15	75,149	\$2,566,682,206.55		
REG CO/SHTA 3/4 DIS				
ART 14 CORR OFFICER				
SHERIFFS - 551	350	17,182,526.85		
SHERIFFS - 551E	41	1,808,466.15		
SHERIFFS - 552	530	25,202,841.40		
SHERIFFS - 553	1,234	72,901,303.77		
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH	7,476	412,854,117.76		
25YR 1/60 PO,AMT,PAR	132	9,031,314.44		
20YR 1/60 INVEST	17	1,705,725.30		
WEST. CO. C.I.	24	2,386,414.55		
<b>SUB-TOTAL</b>	<b>84,953</b>	<b>3,109,754,916.77</b>		
INACTIVE NON-VESTED	11,018	127,297,707.63		
INACTIVE VESTED	7,333	215,715,747.85		
PENDING RETIREMENTS	971	43,792,822.98		
PENDING DEATHS	49	1,447,569.48		
<b>SUB-TOTAL</b>	<b>19,371</b>	<b>388,253,847.94</b>		
<b>TIER TOTAL</b>	<b>104,324</b>	<b>\$3,498,008,764.71</b>		



ERS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— TOWNS

	NUMBER	SALARIES	NUMBER	SALARIES
	TIER 1		TIER 2	
AGE 55/60 CONTRIBUTORY	11	\$266,070.40	7	\$146,237.54
AGE 55 75-C	103	2,624,162.19	84	2,270,534.03
AGE 55 75-E	13	332,128.01	15	431,434.57
AGE 55 75-G	63	2,433,612.22	49	1,939,963.26
AGE 55 75-H				
AGE 55 75-I	2,159	110,099,984.75	1,503	74,241,907.71
REG CO/SHTA 3/4 DIS				
CORR OFF 89				
SHERIFFS 89-A				
SHERIFFS 89-B				
SHERIFFS 89-B(M)				
INVESTIGATORS 89-D				
INVESTIGA. 89-D(M)				
SHERIFFS - 551				
SHERIFFS - 551E				
SHERIFFS - 552				
SHERIFFS - 553				
LEGISLATORS 80-A	1	62,925.60		
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH	1	55,781.55		
25YR 1/60 PO,AMT,PAR			1	50,358.38
<b>SUB-TOTAL</b>	<b>2,351</b>	<b>115,874,664.72</b>	<b>1,659</b>	<b>79,080,435.49</b>
INACTIVE NON-VESTED	6	1,500.00	10	68,842.55
INACTIVE VESTED	413	7,641,034.80	312	7,080,225.73
PENDING RETIREMENTS	303	14,549,343.12	95	3,891,286.44
PENDING DEATHS	3	113,892.21	1	38,359.30
<b>SUB-TOTAL</b>	<b>725</b>	<b>22,305,770.13</b>	<b>418</b>	<b>11,078,714.02</b>
<b>TIER TOTAL</b>	<b>3,076</b>	<b>\$138,180,434.85</b>	<b>2,077</b>	<b>\$90,159,149.51</b>
<b>TIER 3 &amp; 4</b>				
ARTICLE 14 & 15	29,194	\$958,240,773.23		
REG CO/SHTA 3/4 DIS				
ART 14 CORR OFFICER				
SHERIFFS - 551				
SHERIFFS - 551E				
SHERIFFS - 552				
SHERIFFS - 553				
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH	3	126,444.56		
25YR 1/60 PO,AMT,PAR	11	529,398.12		
20YR 1/60 INVEST				
WEST. CO. C.I.				
<b>SUB-TOTAL</b>	<b>29,208</b>	<b>958,896,615.91</b>		
INACTIVE NON-VESTED	2,793	25,986,765.23		
INACTIVE VESTED	1,953	48,985,344.82		
PENDING RETIREMENTS	263	9,922,085.58		
PENDING DEATHS	25	640,793.38		
<b>SUB-TOTAL</b>	<b>5,034</b>	<b>85,534,989.01</b>		
<b>TIER TOTAL</b>	<b>34,242</b>	<b>\$1,044,431,604.92</b>		

ERS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— VILLAGES

	NUMBER	SALARIES	NUMBER	SALARIES
	<b>TIER 1</b>		<b>TIER 2</b>	
AGE 55/60 CONTRIBUTORY	3	53,564.50	3	84,381.92
AGE 55 75-C	30	1,215,588.53	33	1,142,905.47
AGE 55 75-E	5	124,469.82	1	30,962.30
AGE 55 75-G	37	1,612,952.58	27	1,144,989.12
AGE 55 75-H				
AGE 55 75-I	535	26,859,875.16	369	17,594,227.68
REG CO/SHTA 3/4 DIS				
CORR OFF 89				
SHERIFFS 89-A				
SHERIFFS 89-B				
SHERIFFS 89-B(M)				
INVESTIGATORS 89-D				
INVESTIGA. 89-D(M)				
SHERIFFS - 551				
SHERIFFS - 551E				
SHERIFFS - 552				
SHERIFFS - 553				
LEGISLATORS 80-A				
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH				
25YR 1/60 PO,AMT,PAR				
<b>SUB-TOTAL</b>	610	29,866,450.59	433	19,997,466.49
INACTIVE NON-VESTED	2	688.00	1	0.00
INACTIVE VESTED	158	3,089,717.77	97	2,219,811.98
PENDING RETIREMENTS	104	4,646,278.00	27	1,235,969.24
PENDING DEATHS	1	2,750.00	2	55,431.93
<b>SUB-TOTAL</b>	265	7,739,433.77	127	3,511,213.15
<b>TIER TOTAL</b>	875	\$37,605,884.36	560	\$23,508,679.64
	<b>TIER 3 &amp; 4</b>			
ARTICLE 14 & 15	9,410	\$302,386,012.68		
REG CO/SHTA 3/4 DIS				
ART 14 CORR OFFICER				
SHERIFFS - 551				
SHERIFFS - 551E				
SHERIFFS - 552				
SHERIFFS - 553				
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH				
25YR 1/60 PO,AMT,PAR				
20YR 1/60 INVEST				
WEST. CO. C.I.				
<b>SUB-TOTAL</b>	9,410	302,386,012.68		
INACTIVE NON-VESTED	1,144	10,642,140.12		
INACTIVE VESTED	737	18,053,662.86		
PENDING RETIREMENTS	85	2,975,236.13		
PENDING DEATHS	12	382,829.56		
<b>SUB-TOTAL</b>	1,978	32,053,868.67		
<b>TIER TOTAL</b>	11,388	\$334,439,881.35		

ERS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— MISCELLANEOUS

	NUMBER	SALARIES	NUMBER	SALARIES
	TIER 1		TIER 2	
AGE 55/60 CONTRIBUTORY	4	\$238,787.11	3	\$168,572.79
AGE 55 75-C	15	683,728.41	12	525,026.98
AGE 55 75-E	3	69,732.77	5	172,188.56
AGE 55 75-G	120	6,266,134.19	66	4,343,122.25
AGE 55 75-H	497	26,576,151.55	344	19,043,951.32
AGE 55 75-I	2,793	168,116,242.26	1,855	108,425,614.06
REG CO/SHTA 3/4 DIS				
CORR OFF 89				
SHERIFFS 89-A				
SHERIFFS 89-B				
SHERIFFS 89-B(M)				
INVESTIGATORS 89-D				
INVESTIGA. 89-D(M)				
SHERIFFS - 551				
SHERIFFS - 551E				
SHERIFFS - 552				
SHERIFFS - 553				
LEGISLATORS 80-A	2	121,987.65	1	13,771.20
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH				
25YR 1/60 PO,AMT,PAR				
<b>SUB-TOTAL</b>	3,434	202,072,763.94	2,286	132,692,247.16
INACTIVE NON-VESTED	7	125,694.81	8	47,142.15
INACTIVE VESTED	673	14,884,840.48	409	14,049,432.35
PENDING RETIREMENTS	822	49,657,748.82	210	11,822,580.78
PENDING DEATHS	6	184,470.22	5	289,076.41
<b>SUB-TOTAL</b>	1,508	64,852,754.33	632	26,208,231.69
<b>TIER TOTAL</b>	4,942	\$266,925,518.27	2,918	\$158,900,478.85
	<b>TIER 3 &amp; 4</b>			
ARTICLE 14 & 15	63,285	\$2,503,820,739.07		
REG CO/SHTA 3/4 DIS				
ART 14 CORR OFFICER				
SHERIFFS - 551				
SHERIFFS - 551E				
SHERIFFS - 552				
SHERIFFS - 553				
UNIFIED CRT PC OFF				
25YR CO/SHER/OMH				
25YR 1/60 PO,AMT,PAR				
20YR 1/60 INVEST				
WEST. CO. C.I.				
<b>SUB-TOTAL</b>	63,285	2,503,820,739.07		
INACTIVE NON-VESTED	7,610	107,899,396.66		
INACTIVE VESTED	6,168	255,179,068.72		
PENDING RETIREMENTS	742	32,188,506.62		
PENDING DEATHS	43	1,348,230.44		
<b>SUB-TOTAL</b>	14,563	396,615,202.44		
<b>TIER TOTAL</b>	77,848	\$2,900,435,941.51		





ERS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— TOTAL BY TIER

	NUMBER	SALARIES	NUMBER	SALARIES
	TIER 1		TIER 2	
AGE 55/60 CONTRIBUTORY	18	558,422.01	15	454,084.44
AGE 55 75-C	183	5,430,184.54	161	4,815,214.68
AGE 55 75-E	50	1,528,693.68	50	1,578,098.06
AGE 55 75-G	519	19,765,479.98	345	14,058,515.17
AGE 55 75-H	16,336	910,684,517.50	9,968	549,180,983.77
AGE 55 75-I	16,652	777,499,451.71	11,551	531,725,764.98
REG CO/SHTA 3/4 DIS	53	3,433,235.76	11	729,801.63
CORR OFF 89	638	41,235,841.40	555	34,372,362.26
SHERIFFS 89-A	20	1,172,610.09	4	133,164.97
SHERIFFS 89-B	45	3,028,475.89	18	1,109,836.75
SHERIFFS 89-B(M)	30	1,970,076.99	8	408,210.84
INVESTIGATORS 89-D	1	124,649.19	2	139,572.38
INVESTIGA. 89-D(M)	10	1,160,902.96	2	168,833.66
SHERIFFS - 551	6	337,560.11	23	1,230,363.70
SHERIFFS - 551E	0	0.00	4	221,834.37
SHERIFFS - 552	9	507,243.17	16	899,720.41
SHERIFFS - 553	43	3,112,027.44	66	4,615,958.78
LEGISLATORS 80-A	92	6,664,350.09	5	287,519.68
UNIFIED CRT PC OFF	0	0.00	299	22,608,887.45
25YR CO/SHER/OMH	208	14,756,106.25	192	13,095,656.44
25YR 1/60 PO,AMT,PAR	59	4,864,030.06	26	2,009,114.90
<b>SUB-TOTAL</b>	<b>34,972</b>	<b>1,797,833,858.82</b>	<b>23,321</b>	<b>1,183,843,499.32</b>
INACTIVE NON-VESTED	56	343,005.07	87	618,149.47
INACTIVE VESTED	7,688	147,340,275.43	4,826	125,970,333.97
PENDING RETIREMENTS	7,262	385,447,151.85	1,867	95,461,593.33
PENDING DEATHS	54	1,538,592.08	21	1,048,445.04
<b>SUB-TOTAL</b>	<b>15,060</b>	<b>534,669,024.43</b>	<b>6,801</b>	<b>223,098,521.81</b>
<b>TIER TOTAL</b>	<b>50,032</b>	<b>2,332,502,883.25</b>	<b>30,122</b>	<b>1,406,942,021.13</b>
<b>TIER 3 &amp; 4</b>				
ARTICLE 14 & 15	407,644	14,055,022,479.52		
REG CO/SHTA 3/4 DIS	332	16,305,521.21		
ART 14 CORR OFFICER	21,131	1,059,972,554.16		
SHERIFFS - 551	350	17,182,526.85		
SHERIFFS - 551E	41	1,808,466.15		
SHERIFFS - 552	530	25,202,841.40		
SHERIFFS - 553	1,234	72,901,303.77		
UNIFIED CRT PC OFF	5,196	291,195,487.99		
25YR CO/SHER/OMH	7,937	434,127,063.30		
25YR 1/60 PO,AMT,PAR	143	9,560,712.56		
20YR 1/60 INVEST	17	1,705,725.30		
WEST. CO. C.I.	24	2,386,414.55		
<b>SUB-TOTAL</b>	<b>444,579</b>	<b>15,987,371,096.76</b>		
INACTIVE NON-VESTED	49,493	554,142,276.61		
INACTIVE VESTED	35,532	1,090,673,756.16		
PENDING RETIREMENTS	4,525	189,479,323.76		
PENDING DEATHS	272	8,275,991.42		
<b>SUB-TOTAL</b>	<b>89,822</b>	<b>1,842,571,347.95</b>		
<b>TIER TOTAL</b>	<b>534,401</b>	<b>\$17,829,942,444.71</b>		

ERS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ----- GRAND TOTAL

	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY	33	\$1,012,506.45
AGE 55 75-C	344	10,245,399.22
AGE 55 75-E	100	3,106,791.74
AGE 55 75-G	864	33,823,995.15
AGE 55 75-H	26,304	1,459,865,501.27
AGE 55 75-I	28,203	1,309,225,216.69
REG CO/SHTA 3/4 DIS	396	20,468,558.60
CORRECTION OFFICERS	22,324	1,135,580,757.82
SHERIFFS 89-A	24	1,305,775.06
SHERIFFS 89-B	63	4,138,312.64
SHERIFFS 89-B(M)	38	2,378,287.83
INVESTIGATORS 89-D	3	264,221.57
INVESTIGA. 89-D(M)	12	1,329,736.62
SHERIFFS - 551	379	18,750,450.66
SHERIFFS - 551E	45	2,030,300.52
SHERIFFS - 552	555	26,609,804.98
SHERIFFS - 553	1,343	80,629,289.99
LEGISLATORS	97	6,951,869.77
UNIFIED CRT PC OFF	5,495	313,804,375.44
25YR CO/SHER/OMH	8,337	461,978,825.99
25YR 1/60 PO,AMT,PAR	228	16,433,857.52
20YR 1/60 INVEST	17	1,705,725.30
ARTICLE 14 & 15	407,644	14,055,022,479.52
WEST. CO. C.I.	24	2,386,414.55
<b>SUB-TOTAL</b>	<b>502,872</b>	<b>18,969,048,454.90</b>
INACTIVE NON-VESTED	49,636	555,103,431.15
INACTIVE VESTED	48,046	1,363,984,365.56
PENDING RETIREMENTS	13,654	670,388,068.94
PENDING DEATHS	347	10,863,028.54
<b>SUB-TOTAL</b>	<b>111,683</b>	<b>2,600,338,894.19</b>
<b>GRAND TOTAL</b>	<b>614,555</b>	<b>\$21,569,387,349.09</b>

## NUMBER OF ACTIVE MEMBERS

	<u>TIER 1</u>	<u>TIER 2</u>	<u>TIER 3&amp;4</u>	<u>TOTAL</u>
STATE	16,669	10,533	149,509	176,711
COUNTIES	6,222	4,530	84,953	95,705
CITIES	1,161	804	13,751	15,716
TOWNS	2,351	1,659	29,208	33,218
VILLAGES	610	433	9,410	10,453
MISC	3,434	2,286	63,285	69,005
SCHOOLS	4,525	3,076	94,463	102,064
TOTAL	34,972	23,321	444,579	502,872

## ACTIVE MEMBERS SALARIES

	<u>TIER 1</u>	<u>TIER 2</u>	<u>TIER 3 &amp; 4</u>	<u>TOTAL</u>
STATE	937,915,745.89	590,264,949.07	6,460,426,578.27	7,988,607,273.23
COUNTIES	309,568,910.01	220,911,157.74	3,109,754,916.77	3,640,234,984.52
CITIES	53,046,075.46	36,326,251.25	486,933,593.13	576,305,919.84
TOWNS	115,874,664.72	79,080,435.49	958,896,615.91	1,153,851,716.12
VILLAGES	29,866,450.59	19,997,466.49	302,386,012.68	352,249,929.76
MISC	202,072,763.94	132,692,247.16	2,503,820,739.07	2,838,585,750.17
SCHOOLS	149,489,248.21	104,570,992.12	2,165,152,640.93	2,419,212,881.26
TOTAL	1,797,833,858.82	1,183,843,499.32	15,987,371,096.76	18,969,048,454.90

## INCENTIVE AND AMORTIZATION PAYMENT AMOUNTS AND PRESENT VALUES

THE PRESENT VALUES SHOWN BELOW, MINUS ANY CREDITS DUE TO ADVANCE PAYMENTS, ARE INCLUDED IN THE "PRESENT ASSETS" OF THE SYSTEM, DESPITE THE FACT THAT THEY HAVE NOT YET BEEN RECEIVED.

	CHAPTER/ LAWS OF	ANNUAL PAYMENT	LAST PAYMENT DATE	PRESENT VALUE AS OF 4/1/03
<b>LOCAL</b>				
Amortization of 1988 & 1989 Bills		88,368,857	12/15/2005	230,252,920
Incentives	47/1998	5,108,720	12/15/2003	4,821,876
	70/1999	10,633,933	12/15/2004	19,393,596
	86/2000	15,160,415	12/15/2005	39,956,777
	69/2002	46,380,825	12/16/2007	200,000,000
Misc. Amortizations				19,709,510
P.V. Deficiency Contributions				11,293,713
<b>STATE</b>				
Incentives	47/1998	9,080,000	by 3/1/2004	8,425,750
	70/1999	6,880,000	by 3/1/2005	12,268,388
	86/2000	8,800,000	by 3/1/2006	22,824,367
	69/2002	37,104,660	by 3/1/2008	160,000,000
Misc. Payments				2,360,000

210M

12/15/03:  
249

4/1/03  
22.5 State  
210 Kocay

COMPARISON OF ACCOUNTING'S NET ASSETS AVAILABLE  
FOR BENEFITS WITH ACTUARIAL ASSETS

	ERS	PFRS	GLIP	TOTAL
ACCOUNTING'S NET ASSETS AVAILABLE FOR BENEFITS	82,521,636,193	14,813,579,651	37,453,491	97,372,669,335
PLUS LIABILITIES PAYABLE FROM ACCOUNTING'S BALANCE SHEETS	340,078,343	41,617,403	20,340,234	402,035,980
SUBTOTAL - ACCOUNTING'S BALANCE SHEET ASSETS	82,861,714,536	14,855,197,054	57,793,725	97,774,705,315
DIFFERENCE BETWEEN MARKET VALUE AND AMORTIZED VALUE OF BONDS AND MORTGAGE LOANS	(2,784,123,830)	(504,922,173)		
NON-MEMBER CONTRIBUTIONS IN THE PA FUND	(35,215,817)	(38,419)		
ADMINISTRATIVE OVERBILL ACCT	2,782,670	0		
5-YEAR SMOOTHING ADJUSTMEN	10,341,303,363	1,875,470,212		
TOTAL - ACTUARIAL ASSETS	90,386,460,922	16,225,706,674	57,793,725	106,669,961,321

10,341.3  
 1,875.5  
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 12,216.8  
 - 3,289.0  
 -----  
 8,927.8

2,784.1  
 504.9  
 -----  
 3,289.0

diff  
act vs

**Minras, Omegas and Retirement Assumptions**

**ERS – Tier 1**

Plan or Group		Minra	Assumed Omega	Retirement Assumption
75-a	(1025)	55	70	T1E55
75-c	(1030)	55	70	T1E55
75-e	(1035)	55	70	T1E55
75-g	(1040)	55	70	T1E55
75 h & i	(1065,1066,1098)	55	70	T1E55
RGD75	(1082)	55	70	T1E55
80-a	(1095)	MIN(20 YRS, MAX(55, 10YRS))	70	YR25W70
89	(1080)	MIN(60, 25 YRS)	70	OR25C70
89-a	(1085)	MAX(50, MIN (65, 25 YRS))	65	YR25W70
89-b	(1090)	MIN (60, 20 YRS)	60	YR20W62
89-b(m)	(1091)	MIN (60, 20 YRS)	60	OR20E62
89-d	(1087)	MIN (62, 20 YRS)	62	YR20W62
89-d(m)	(1088)	MIN (62, 20 YRS)	62	OR20E62
89-e	(1086)	MIN (60, 25 YRS)	70	YR25W70
89-sa,-sp	(1084)	MIN (60, 25 YRS)	70	YR25W70
SICK LEAVE	(1145,1146)	55	70	T1E55
PEND ST RET	(1010,1011)	N/A	N/A	T1E55
PEND N-ST RET	(1015,1016)	N/A	N/A	T1E55
PEND ACC DIS	(1012)	N/A	N/A	T1E55
PEND ORD DIS	(1013)	N/A	N/A	T1E55
INACTIVE VEST	(1006,1008)	55	N/A	T1E55
SEC. 551	(1096)	MIN (60,25 YRS)	70	YR25W70
SEC. 551-e	(1097)	MIN (60,25 YRS)	62	YR25W70
SEC. 552	(1092)	MIN (62, 20 YRS)	62	YR20W62
SEC. 553	(1093)	MIN (62, 20 YRS)	62	OR20E62

**Minras, Omegas and Retirement Assumptions**

**ERS – Tier 2**

Plan or Group		Minra	Assumed Omega	Retirement Assumption
71-a	(3025)	MAX (55,5 YRS)	70	T2E55
75-c & e	(3030)	MAX (55,5 YRS)	70	T2E55
75-g	(3035)	MAX (55,5 YRS)	70	T2E55
75-h & i	(3055,3056,3099)	MAX (55,5 YRS)	70	T2E55
RGD75	(3061)	MAX (55,5 YRS)	70	T2E55
PEACE OFF	(3057)	MAX (55,5 YRS)	70	T2E55
PEACE OFF (DIS)	(3078)	MAX (55,5 YRS)	70	T2E55
80-a	(3073)	MIN (20 YRS, MAX (55, 10 YRS))	70	YR25W70
89	(3060)	MIN (60,25 YRS)	70	YR25C70
89-a	(3065)	MAX (55,MIN (65, 25 YRS))	65	YR20W70
89-b	(3070)	MIN (55,MAX (55, 20 YRS))	60	YR20W62
89-b(m)	(3071)	MIN (55,MAX (55, 20 YRS))	60	OR20E62
89-d	(3067)	MIN (62,20 YRS)	62	YR20W62
89-d(m)	(3068)	MIN (62,20 YRS)	62	OR20E62
89-e	(3066)	MIN (60,25 YRS)	70	YR25W70
89-sa,-sp	(3064)	MIN (60,25 YRS)	70	YR25W70
DEATH BENEFIT 1	(3087)	MAX (55,5 YRS)	70	T2E55
DEATH BENEFIT 2	(3085)	MAX (55,5 YRS)	70	T2E55
SICK LEAVE	(3095,3096)	MAX (55,5 YRS)	70	T2E55
PEND ST RET	(3010,3011)	N/A	N/A	T2E55
PEND NON-ST RET	(3015,3016)	N/A	N/A	T2E55
PEND ACC DIS	(3012)	N/A	N/A	T2E55
PEND ORD DIS	(3013)	N/A	N/A	T2E55
INACTIVE VEST	(3006,3008)	MAX (55,5 YRS)	N/A	T2E55
TEACHERS	(3098)	MAX (55,5 YRS)	70	T2E55
COMM COLLEGE	(3097)	MAX (55,5 YRS)	70	T2E55
SEC 551	(3076)	MIN (60,25 YRS)	70	YR25W70
SEC 551-E	(3077)	MIN (60,25 YRS)	62	YR25W70
SEC 552	(3074)	MIN (62,20 YRS)	62	YR20E62
SEC 553	(3075)	MIN (62,20 YRS)	62	OR20E62



**Minras, Omegas and Retirement Assumptions**

**ERS – Tiers 3 and 4**

Plan or Group		Minra	Assumed Omega	Retirement Assumption
REGULAR TIER 3 and 4	(5205,5204,5206,5404,5405,5406)	MAX(55,5YRS)	70	T34E55
RGD75	(5303,5402,5403)	MAX(55,5YRS)	70	T34E55
PEACE OFF	(5505,5314,5605,5604,5415,5416)	MAX(55,5YRS)	70	T34E55
STATE CORR OFF	(5304,5305)	MIN(60,25YRS)	70	YR25W70
89e	(5704,5705)	MIN(60,25YRS)	70	YR25W70
89-sa	(5707,5706)	MIN(60,25YRS)	70	YR25W70
DEATH BENEFIT 0	(5496,5495)	MIN(60,25YRS)	70	YR25W70
DEATH BENEFIT 1	(5497,5472)	MAX(55,5YRS)	70	T34E55
DEATH BENEFIT 2	(5498,5490)	MAX(55,5YRS)	70	T34E55
SICK LEAVE	(5096,5098,5097,5099)	MAX(55,5YRS)	70	T34E55
PEND STATE RET	(5040,5041,5060,5061)	N/A	N/A	T34E55
PEND NON-STATE RET	(5050,5051,5065,5066)	N/A	N/A	T34E55
PEND ACC DISABILITY	(5042,5062)	N/A	N/A	T34E55
PEND ORD DISABILITY	(5043,5063)	N/A	N/A	T34E55
INACTIVE VESTED	(5027,5029,5037,5039)	MAX(55,5YRS)	N/A	T34E55
TEACHERS	(5100,5101)	MAX(55,5YRS)	70	T34E55
COMMUNITY COLLEGES	(5102,5103)	MAX(55,5YRS)	70	T34E55
SEC. 551	(5308,5409,5413)	MIN(60,25YRS)	70	YR25W70
SEC. 551-e	(5309,5410,5414)	MIN(60,25YRS)	62	YR25W70
SEC. 552	(5306,5407,5411)	MIN(62,20YRS)	62	YR20W62
SEC. 553	(5307,5408,5412)	MIN(62,20YRS)	62	YR20W62
604-PR	(5418,5420)	MIN(62,20YRS)	62	YR20W62

**ERS**  
**Service Retirement Benefit Formulas**  
**Regular Plans**

**Tier 1 and Tier 2**

Yrs Include Article 19 service unless specifically excluded.

Yrs = Yrs + [(1/24) \* Yrs > 2]

- 71-a** .....  $1/120 * FAS * \text{Years of Service (Yrs)}$
- 75-c** .....  $1/120 * FAS * \text{Yrs prior to 1960} + 1/60 * FAS * \text{Yrs} \geq 1960$
- 75-e** .....  $1/60 * FAS * \text{Yrs}$
- 75-g** .....  $1/60 * FAS * \text{Yrs if Yrs} < 25$   
 $.5 * FAS + 1/60 * FAS * (\text{Yrs} - 25) \text{ if Yrs} \geq 25$
- 75-h & i** .....  $1/60 * FAS * \text{Yrs if Yrs} < 20$   
 $1/50 * FAS * \text{Yrs up to } .75 * FAS \text{ or } 75\text{-g benefit if greater, if Yrs} \geq 20$

**Tiers 2, 3 and 4 Reductions if Yrs < 30:**

If retire  $\geq$  age 60: .5%/mo. reduction in benefit for each month retire prior to age 62.

If retire  $\geq$  age 55 and  $<$  60: 12% + .25%/mo. reduction for each month prior to 60.

**Tier 3 and 4**

- $1/60 * FAS * \text{Yrs} * \text{Tier 4 reductions if Yrs} < 20$
- $1/50 * FAS * \text{Yrs} * \text{Tier 4 reductions if } 20 \geq \text{Yrs} < 30$
- $.6 * FAS + .015 * (\text{Yrs} - 30) * FAS \text{ if Yrs} \geq 30$

**ERS****Service Retirement Benefit Formulas  
Special Groups****Unified Court Peace Officers**

75-h benefits or tier 3 and 4 regular benefits

**80-a Legislators (Tier 1 or 2 only)** $1/40 * FAS * Yrs$ , Maximum .75 \* FAS (can retire at 20 yrs of service)**89 (State Correction Officers & Security Hospital Treatment Assistants (SHTA's))**

- Tier 1:  $1/50 * FAS * Yrs$  if Yrs < 25 and age  $\geq 60$   
 $.5 * FAS + 1/60 * FAS * (Yrs - 25)$  if Yrs  $\geq 25$
- Tier 2: Same as Tier 1
- Tier 3: (1)  $.5 * FAS$  if Yrs  $\geq 25$   
 $1/50 * FAS * Yrs$  if Yrs < 25 and age = 70  
 (2)  $1/60 * FAS * Yrs * T3$  reductions if Yrs < 20  
 $1/50 * FAS * \text{Minimum (30, Yrs)} * T3$  reduction, if Yrs  $\geq 20$   
 Escalation if retire over age 62.

**Tier 3 Reductions:**If retire  $\geq$  age 60:  $1/180$  reduction for each month retire prior to age 62.If retire  $\geq$  age 55 and < 60:  $13.33\% + 1/360$  reduction for each month prior to age 60.**89-a (Sheriffs)**

- Tier 1:  $.5 * FAS$  if Yrs  $\geq 25$  and age  $\geq 50$   
 $1/50 * FAS * Yrs$  < 25 and age = 65  
 Assume reversion to 75-i if age  $\geq 55$  and benefit is greater
- Tier 2: Same as Tier 1 except: (a) retirement cannot occur before age 55;  
 and (b) age reductions also apply prior to age 62 if Yrs < 30.

**89-e, . . . (Non-State Correction Officers & Sheriffs)**

- Tier 1 & 2: 75-i regular plan benefits or  $.5 * FAS$  if years  $\geq 25$  and benefit is greater
- Tier 3 & 4: Tier 4 regular plan benefits, or  $.5 * FAS$  if years  $\geq 25$  and benefit is greater

**89-b (Sheriffs) \*\***

- Tier 1:  $.5 * FAS$  if Yrs  $\geq 20$   
 $1/40 * FAS * Yrs$  if Yrs < 20 and age = 60  
 Assume reversion to 75-i if age  $\geq 55$  and benefit is greater (no reversion to 75-g).
- Tier 2: Same as Tier 1 except retirement cannot occur before age 55 and 89-b reductions apply if retirement before age 60 and Yrs < 30. 75-i benefits use the 75-i reductions below age 62 if yrs < 30.

**89-b Reductions:** .5% per month that retirement precedes age 60**89-b(m) (Sheriffs) \*\***

- Tier 1:  $.5 * FAS + 1/60 * (Yrs - 20) * FAS$ , Maximum of  $2/3 * FAS$  if Yrs  $\geq 20$   
 $1/40 * FAS * Yrs$  if Yrs < 20 and age = 60  
 Assume reversion to 75-i or 75-g if age  $\geq 55$  and benefit is greater
- Tier 2: Same as Tier 1 except: (a) retirement cannot occur before age 55;  
 (b) 89-b reductions apply if retirement before age 60 and Yrs. < 30. 75-i benefits use 75-i reductions below age 62 if Yrs < 30

**89-d (Various Investigators) \*\***

- Tier 1: Same as 89-b (Sheriffs) except omega = 62.
- Tier 2: Same as Tier 1 except the 75-i reversion uses the 75-i reductions below age 62 if Yrs < 30.

**ERS**  
**Service Retirement Benefit Formulas**  
**Special Groups (Cont'd)**

**89-d(m) (Various Investigators) \*\***

Tier 1: Same as 89-b(m) except omega = 62.

Tier 2: Same as Tier 1 except 75-i benefits use 75-i reductions below age 62 if Yrs

&lt; 30.

**89-sa, 89-sp (Nassau County Ambulance Medical Technicians and Peace Officers) \*\***Tier 1:  $.5 * FAS + 1/60 (YRS - 25) * FAS$ , maximum  $3/4 * FAS$ , if YRS  $\geq 25$ Assume reversion to 75-i if age  $\geq 55$  and benefit is greater

Tier 2: Same as Tier 1 except the 75-i reversion includes service reductions if Yrs

&lt; 30.

Tier 4: Same as Tier 1 except the reversion is to Article 15 except no  $1/60 (Yrs -$ 

25)\*

FAS under 89-sp

**551 (14-b Sheriffs 25 Year) \*\***Tier 1:  $.5 * FAS$  if YRS 25Assume reversion to 75-i if age  $\geq 55$  and benefit is greater

Tier 2: Same as Tier 1 except the 75-i reversion includes the service reductions if Yrs

&lt; 30.

Tier 3 &amp; 4: Same as Tier 1 except reversion is to Article 15

**551e and 551ee (14-b Sheriffs 25 year with additional 60ths)**Tier 1:  $.5 * FAS + 1/60 (IYRS - 25) * FAS$  if YRS  $\geq 25$ Assume reversion to 75-i if age  $\geq 55$ 

and benefit is greater

NOTE: IYRS = integer years of service

Tier 2: Same as Tier 1 except the

75-i reversion includes service reductions if Yrs &lt; 30.

Tier 3 &amp; 4: Same as Tier 1 except the reversion is to Article 15

**552 (14-b Sheriffs 20 year) \*\***Tier 1:  $.5 * FAS$  if YRS  $\geq 20$ Assume reversion to 75-i if age  $\geq 55$  and benefit is greater (no reversion to

75-g)

Tier 2: Same as Tier 1 except the 75-i reversion includes service reductions if Yrs

&lt; 30.

Tier 3 &amp; 4: Same as Tier 1 except the reversion is to Article 15

**553 and 553b (14-b Sheriffs 20 Years with additional 60th) \*\***Tier 1:  $.5 * FAS + 1/60 (YRS-20) * FAS$ , Maximum of  $.75 * FAS$  if YRS  $\geq 20$ Assume reversion to 75-i if age  $\geq 55$  and benefit is greater (no reversion to

75-g)

Tier 2: Same as Tier 1 except the 75-i reversion includes service reductions if Yrs

&lt; 30.

Tier 3 &amp; 4: Same as Tier 1 except the reversion is to Article 15

**604pr (Rockland County Investigators)**Tier 4:  $5 * FAS + 1/60 (YRS-20) * FAS$ , Maximum of  $.75 * FAS$  if YRS 20Assume reversion to article 15 if age  $\geq 55$  and benefit is greater

\*\* No non-sheriff service unless reverted.

## ERS Vested Benefit Formulas

<u>Plans Covered</u>	<u>Benefit</u>
89 Tier 1 and Tier 2; 89-d and 89-d(m) Tier 1; and 89-b and 89-b(m) Tier 1; Sec. 552 and 553 Tier 1	$1/60 * FAS * Yrs$ if Yrs $\geq 5$
89-b and 89-b(m) Tier 2; 89-d and 89-d(m) Tier 2; Sec. 552 and 553 Tier 2	$1/60 * FAS * Yrs * .73$ if Yrs $\geq 5$
89-a Tier 1, 89-e ..... Tier 1 Sec. 551 & 551-e Tier 1 89-sa,-sp Tier 1 & 2	$1/60 * FAS * Yrs$ if Yrs $\geq 5$ and $< 20$ $1/50 * FAS * Yrs$ if Yrs $\geq 20$
89-a Tier 2, 89-e .... Tier 2 Sec. 551 & 551-e Tier 2	$1/60 * FAS * Yrs * .73$ if Yrs $\geq 5$ and $< 20$ $1/50 * FAS * Yrs * .73$ if Yrs $\geq 20$
Sec. 552 and 553 Tier 3 & 4 604pr and 89-sa Tier 4	$1/60 * FAS * Yrs * Tier 4$ reductions if Yrs. $\geq 5$
Sec. 551 and 551-e Tier 3 & 4	$1/50 * FAS * Yrs * Tier 4$ reductions if Yrs $> 20$ , else same as above benefit
All Other Plans	Service Benefit Formula if Yrs $\geq 5$

Age to Begin Receiving a vested benefit: 55.

For Tier 3 and 4 members with 5 to 9 years of service:

Greater of vested benefit or the refund of employee contributions

To be eligible for Article 19, must be active between 6/99 -10/00. We do not assume any extra service for vesteds.

## Disability Benefit Formulas

### Accidental

All Tier 1 & Tier 2 & Peace Officers all Tiers

.75 \* FAS - .18 \* FAS = .57 \* FAS (.18 \* FAS is the assumed average workers' compensation offset)

Tier 3 and 4 (except Peace Officers Tier 3 State Corrections & SHTAs - regular or special plan)

Maximum of:  $1/60 * FAS * Yrs$  or  $1/3 * FAS$

Tier 3&4 State Correction & SHTA - regular or special; .75 \* FAS - .18 \* FAS

14-b Sheriff Plans (551, 551-e, 552 & 553)

Pre 11/1/85 members only.

Maximum of regular Tier benefit, IPOD benefit of .5 FAS and  $[2/3 FAS - .18 * FAS]$

NOTE: 14-b plans use P&F disability rates - special plans and SHTA disability in Tier 1 and 2 also use the P&F rates. Tier 3&4 State Correction Officer and SHTA (regular or special) use .5 of P&F rates.

**Ordinary Disability . . . . Requires 10 years of service.**

Maximum of:	{	$1/60 * FAS * Yrs$	{	$1/3 * FAS$
.....		Minimum of:		$1/60 * FAS * Projected\ service\ to\ age\ 60$
.....				

**Tier 3 State Correction Officers and SHTA's**

will receive a 3% annually escalated benefit.

IPOD .....All 14-b plans .5 \* FAS  
(In performance of duty)



## Death Benefit Formulas

### Accidental Death:

Tiers 1, 2, and 3      .5 \* FAS  
 Tier 3 will receive a 3% annually escalated benefit.

Tier 4      .5\* Salary (SAL)

### Ordinary Death

Tier 1 Plans

.....*If not eligible to retire,*

**71-a**      1/12 \* SAL for each of the first 12 years of service +  
 1/24 \* SAL for each of the first 24 years above 12, but  
 ≤36, i.e., Max of 2 \* SAL

**75-c, e, g, i,**      1/12 \* SAL \* Yrs up to 36  
**75-h non-Security,**  
**80-a, 89-b, d, b(m)**  
**89-d(m), 89-e, . . . & 14 -b plans**  
**89 non-Security, 89-a**

**75-h Security,**      3 \* SAL  
**89 Security**

.....*If eligible to retire, then the greater of the above and*

**71-a**      Service Retirement Benefit \* 4% annuity value

**75-c, e, g, i,**      [75-c service retirement benefit] \* 4% annuity value  
**75-h**

**80-a, 89-a, 89-e,**      [Service Retirement Benefit] \* 4% annuity value  
**89-b, b(m)**      or 75-c benefit if age ≥ 55 and benefit is greater.

**& Sec. 551**  
**89-d, Sec. 552**

**89-d(m)**  
**Sec. 553**



**ERS****Death Benefit Formulas** (con't)**Death Benefit 0****Tiers 2, 3, and 4**

Tier 2      3 \* SAL

Tier 3 & 4      3 \* SAL OR Minimum of: 3 \* SAL and  $1/12 * Yrs * SAL$  if entry year  $\leq 1986$ **NOTE:**

IYrs = integer years of service

Entry Year = Val Year - Current Service

**Death Benefit 1****Tiers 2, 3, and 4**

The better of the following benefits or Death Benefit 2:

 $1/12 * IYrs * SAL$ , Maximum of 3 \* SALTier 2      If eligible to retire, without a reduction, compare with:  
 $1/60 * Yrs * FAS$ , apply the FAS restrictions and multiply by a 4% annuity.Tier 3 & 4      If eligible to retire without a reduction, compare with:  
 $1/60 * Yrs * FAS * 7\%$  annuity  
Also, if entry Year  $\leq 1986$  compare with:  
 $1/12 * Yrs * SAL$ , Maximum of 3 \* SAL



## **ERS**

### **Death Benefit Formulas (cont)**

#### **Death Benefit 2**

*Active Death  
Benefit*

SAL \* Yrs (limited to 3) \* Death Reductions

*Tier 3 & 4*

if entry Year  $\leq$  1986 compare with:  
1/12 \* Yrs \* SAL, maximum of 3 \* SAL

Death Reductions:

- 1 if age < 61
- 1 - .04 \* (age - 60) if age  $\geq$  61 & < 70 and not 89-e
- 1 - .03 \* (age - 60) if age  $\geq$  61 & < 70 and 89-e
- .7 if age  $\geq$  70 and 89-e
- .6 if age  $\geq$  70 and not 89-e

#### **Post-Retirement**

**Death Benefit.. (Service, Ordinary Disability, and Accidental Disability)**

**Tiers 2, 3, and 4 for those  
who have Death Benefit 1 or 2**

If death occurs within the first year after retirement---benefit is .50 of the Tier 2 active death benefit at retirement.

If death occurs in the second year after retirement---benefit is .25 of the Tier 2 active death benefit at retirement.

If death occurs after the second year in retirement--- benefit is .1 of the Tier 2 active death benefit at age 60 or retirement, if earlier and if EA < 60.

If EA  $\geq$  60, the death benefit after the second year of retirement is 0.

**EA = Entry Age**

#### **Active Ordinary**

**Death Benefit & ...** First \$50,000 is paid from group term life insurance; remainder is included in the valuation.

#### **Post-Retirement**

#### **Death Benefit**

If a member has 10 years of service, terminates and dies prior to applying for a vested benefit, one-half of the ordinary death benefit is payable in addition to a refund of member contributions with 5% interest.



## **Other Benefit Formulas**

### **Contributions**

**Tiers 3 and 4 Members**

All Tier 3 and 4 members contribute 3% of their annual salary. These contributions end after 10 years of membership or the attainment of 10 years of service, whichever occurs first, but not before October, 2000.

### **Refunds**

**Tiers 3 and 4 Contributions**

For termination in a non-vested status (less than 10 years or less than MINRA), contributions with 5% interest are refunded.

For termination in vested status and death prior to 55, contributions with 5% interest are refunded.

For ordinary deaths, contributions with 5% interest are refunded.

### **Sick Leave**

Assumes 3 days are credited for each year of service, maximum of 165 days.

*Tier 1 and 2:* Assume 75-i formula with reversion to 75-g.

*Tier 3 and 4:* Assume Tier 4 regular member service formula.

### **Pending Retirements**

Tier 1 and Tier 2: Assume 75-i benefits

Tier 3 and Tier 4: Assume Regular Tier 4 benefits

### **Inactive Members**

#### **(Vested Only)**

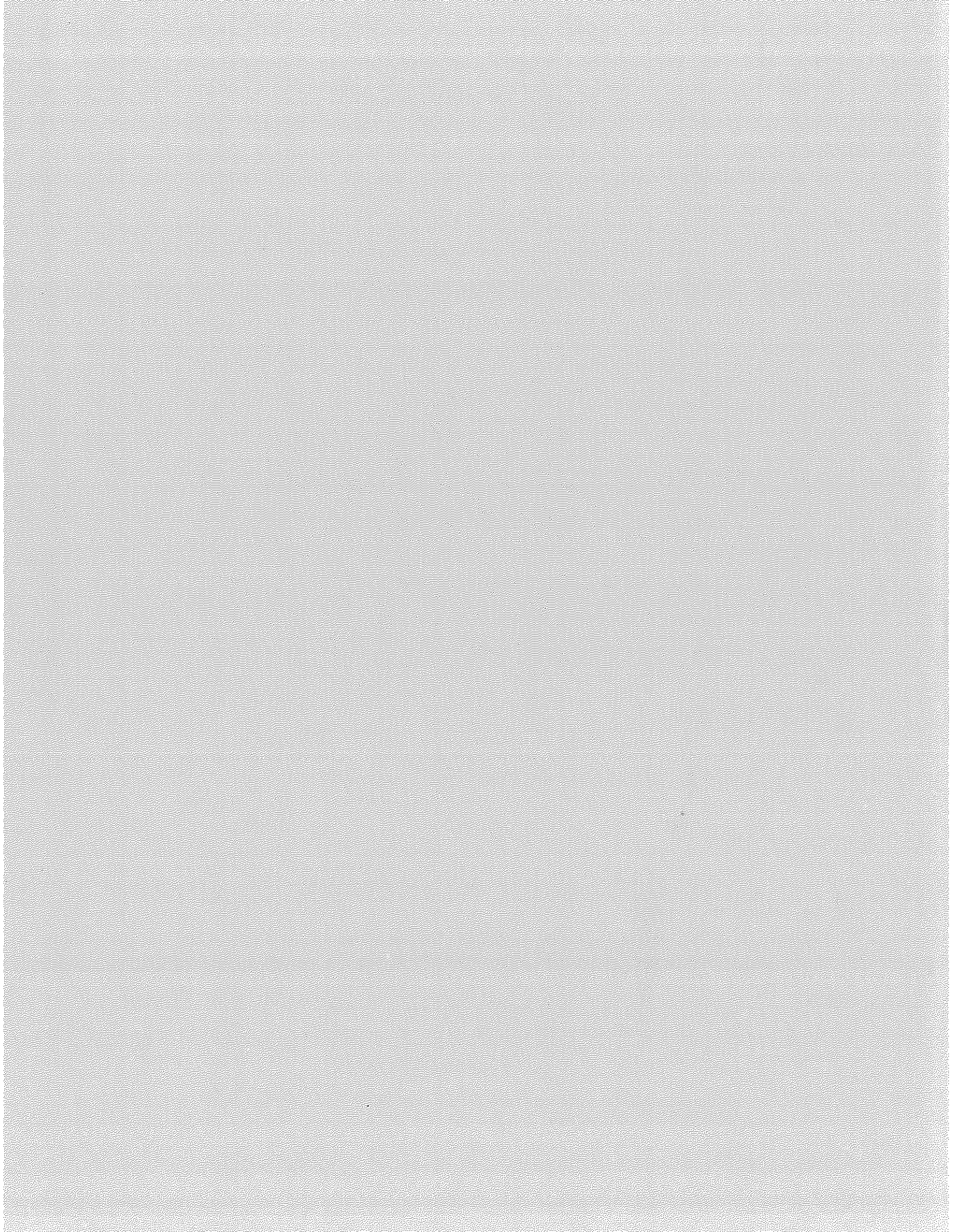
Tier 1 and Tier 2 --- Assume 75-i benefits (no 75-g reversion) starting at 55 or current age, if greater

Tier 3 and Tier 4 --- Assume Regular Tier 4 benefits starting at age 55 current age, if greater. Refund contributions if death prior to 55.

### **COLA**

Eligibility: Pensioners age 62 and retired 5 years  
 ..... Pensioners age 55 and retired 10 years  
 ..... Disability Pensioners retired 5 years  
 ..... Accidental Death beneficiaries receiving a benefit for 5 years

Benefit: 50% of the rate of inflation times the first \$18,000 of the single-life allowance.  
 ..... Maximum 3%. Minimum 1%



\*\*\*\*\*

POLICE AND FIRE  
RETIREMENT SYSTEM

\*\*\*\*\*

FISCAL YEAR  
BEGINNING 4/1/02  
ACTUARIAL VALUATION  
FOR 12/15/03 BILLING

\*\*\*\*\*

PFRS

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ADMINISTRATIVE AND GROUP LIFE INSURANCE RATES  
FOR FISCAL 2004

\*\*\*\*\* ADMINISTRATIVE RATE \*\*\*\*\*

ADMINISTRATIVE EXPENSES FOR 4/1/03-3/31/04 = \$8,346,833  
(THE ADMINISTRATIVE EXPENSES FOR 4/1/03-3/31/04  
ARE ASSUMED TO BE THE SAME AS THOSE FOR  
4/1/02-3/31/03)

$$\text{ADMINISTRATIVE RATE} = \frac{\text{ADMINISTRATIVE EXPENSES}}{\text{ESTIMATED BILLING SALARY}} =$$

$$\frac{8,346,833}{2,482,245,955} = 0.003363 = 0.4 \%$$

ESTIMATED BILLING SALARY IS ESTIMATED SALARY TO BE USED IN THE 12/15/03  
NON-STATE BILLING AND THE 9/1/03 STATE BILLING.

WE ALWAYS ROUND THE RATE TO THE NEXT HIGHEST TENTH OF A PERCENT SINCE THE  
ADMINISTRATIVE EXPENSE MUST BE PAID.

\*\*\*\*\* GROUP LIFE INSURANCE RATES \*\*\*\*\*

THE PFRS PORTION OF THE GTLI EQUITY IN THE COMMON RETIREMENT FUND ON  
4/1/2003 IS \$4,799,838. THE GTLI EQUITY APPRECIATES WITH INTEREST AT THE RATE ACCRUED  
BY OUR SHORT-TERM INVESTMENT POOL, A NON-VOLATILE INVESTMENT VEHICLE. CLAIMS FOR  
THE 2004 FISCAL YEAR ARE ESTIMATED TO BE APPROXIMATELY \$1.65 MILLION. ON ANY GIVEN  
DAY, THE AMOUNT PAYABLE FOR OUTSTANDING GTLI BENEFITS ARE ESTIMATED TO BE  
APPROXIMATELY \$1.4 MILLION. A GTLI PREMIUM RATE OF .1% IS NEEDED TO ENSURE THAT THE  
GTLI EQUITY DOES NOT GO BELOW THIS AMOUNT PAYABLE BEFORE DECEMBER 15, 2004.

PFRS TIER 1 FINAL RATES  
(as a percent)  
FYB 4/1/02 FOR FISCAL 2004

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	4.1	0.4	0.1		4.6
SEC 375-c	4.1	0.4	0.1		4.6
SEC 375-e	4.1	0.4	0.1		4.6
SEC 375-g	4.1	0.4	0.1		4.6
SEC 375-h	4.1	0.4	0.1	0.0	4.6
SEC 375-i	4.1	0.4	0.1		4.6
SEC 375-j	4.1	0.4	0.1		4.6
25 YR CONT (384 1/2)	4.1	0.4	0.1		4.6
25 YR CONT (384 3/4)	4.1	0.4	0.1		4.6
25 YR CONT (384 4/4)	4.1	0.4	0.1		4.6
25 YR (384 NON-CONTRIBUTORY)	4.1	0.4	0.1		4.6
25 YR ADDL 1/60 (384(f)) 20 YR CONT (384	4.1	0.4	0.1		4.6
20 YR CONT (384-d 1/2)	4.1	0.4	0.1		4.6
20 YR CONT (384-d 4/4)	4.1	0.4	0.1		4.6
20 YR (384-d NON-CONTRIBUTORY)	4.1	0.4	0.1		4.6
20 YR ADDL 1/60 (384-e and 384-ex)					
1990 ELECTIONS	9.5	0.4	0.1		10.0
1991 ELECTIONS	12.3	0.4	0.1		12.8
1992 ELECTIONS	13.4	0.4	0.1		13.9
1993 ELECTIONS	16.0	0.4	0.1		16.5
1994 ELECTIONS	13.0	0.4	0.1		13.5
1995 ELECTIONS	16.8	0.4	0.1		17.3
1996 ELECTIONS	18.2	0.4	0.1		18.7
1997 ELECTIONS	16.2	0.4	0.1		16.7
1998 ELECTIONS	17.7	0.4	0.1		18.2
1999 & LATER ELECTIONS	4.1	0.4	0.1		4.6
381-b STATE POLICE	4.1	0.4	0.1	0.0	4.6
383-a PARK POLICE	4.1	0.4	0.1	0.0	4.6
383-b ENCON POLICE	4.2	0.4	0.1	0.0	4.7
383-c FOREST RANGERS	4.1	0.4	0.1	0.0	4.6

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.0
5% ITHP	0.0
8% ITHP	0.0
ONE YEAR FAS	0.0

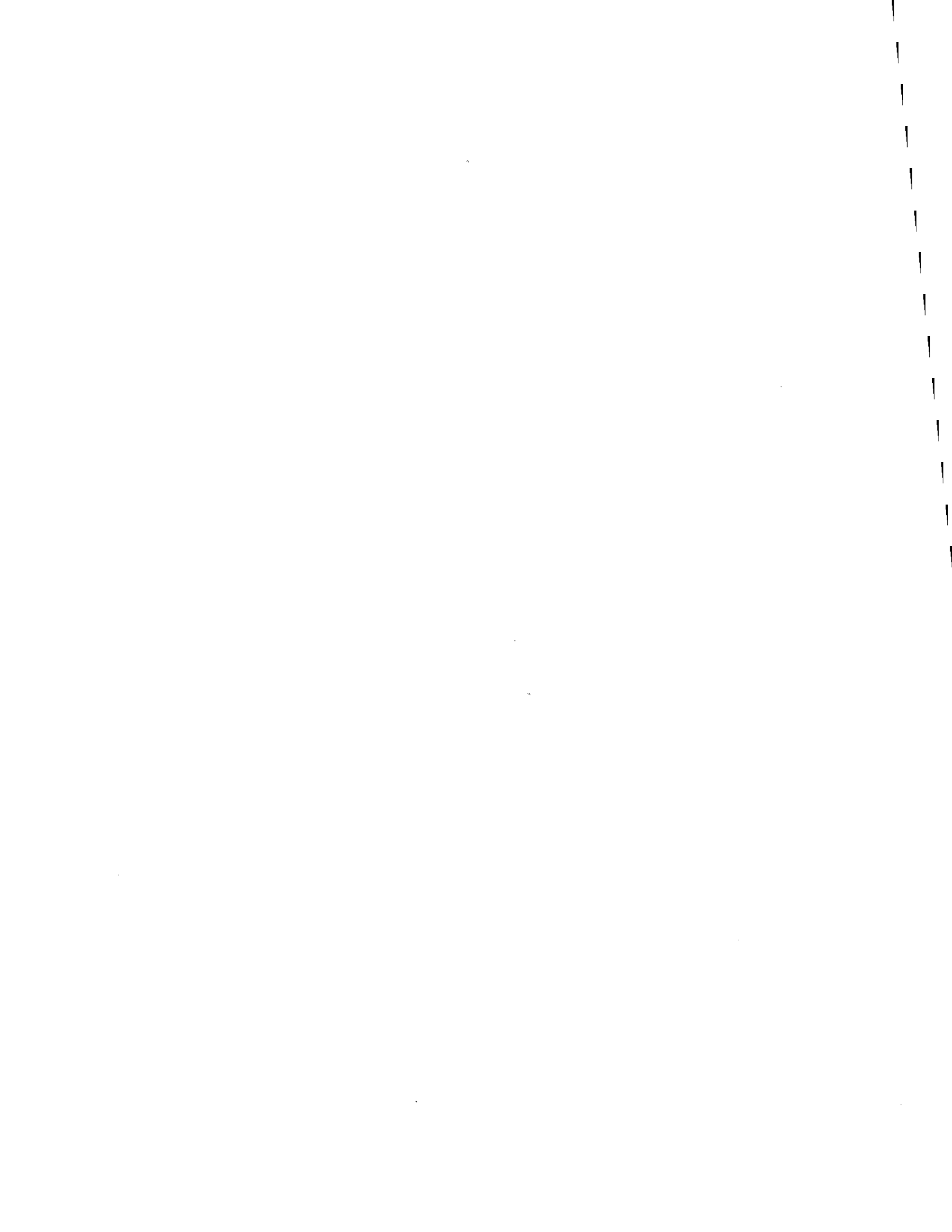
PFRS TIER 2 FINAL RATES  
(as a percent)  
FYB 4/1/02 FOR FISCAL 2004

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	4.1	0.4	0.1		4.6
SEC 375-c	4.1	0.4	0.1		4.6
SEC 375-e	4.1	0.4	0.1		4.6
SEC 375-g	4.1	0.4	0.1		4.6
SEC 375-h	4.1	0.4	0.1	0.0	4.6
SEC 375-i	4.1	0.4	0.1		4.6
SEC 375-j	4.1	0.4	0.1		4.6
25 YR CONT (384 1/2)	4.1	0.4	0.1		4.6
25 YR CONT (384 3/4)	4.1	0.4	0.1		4.6
25 YR CONT (384 4/4)	4.1	0.4	0.1		4.6
25 YR (384 NON-CONTRIBUTORY)	4.1	0.4	0.1		4.6
25 YR ADDL 1/60 (384(f))	4.1	0.4	0.1		4.6
20 YR CONT (384-d 1/2)	4.1	0.4	0.1		4.6
20 YR CONT (384-d 4/4)	4.1	0.4	0.1		4.6
20 YR (384-d NON-CONTRIBUTORY)	4.1	0.4	0.1		4.6
20 YR ADDL 1/60 (384-e and 384-ex)					
1990-1993 ELECTIONS	5.4	0.4	0.1		5.9
1994 ELECTIONS	6.9	0.4	0.1		7.4
1995 ELECTIONS	6.9	0.4	0.1		7.4
1996 ELECTIONS	6.0	0.4	0.1		6.5
1997 ELECTIONS	6.0	0.4	0.1		6.5
1998 ELECTIONS	6.3	0.4	0.1		6.8
1999 & LATER ELECTIONS	4.1	0.4	0.1		4.6
381-b STATE POLICE	4.1	0.4	0.1	0.0	4.6
383-a&b ENCON/PARK POLICE	4.1	0.4	0.1	0.0	4.6
383-c FOREST RANGERS	4.1	0.4	0.1	0.0	4.6

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

OPTION	RATES
SICK LEAVE	0.0
5% ITHP	0.0
8% ITHP	0.0
ONE YEAR FAS	
AGE 55 PLANS	0.0
25 YEAR PLANS	0.0
25 YEAR W/ 1/60 PLANS	0.0
20 YEAR PLANS	0.0
20 YEAR W/ 1/60 PLANS	0.0





\*\*\*\*\*

POLICE AND FIRE  
RETIREMENT SYSTEM

\*\*\*\*\*

FISCAL YEAR  
BEGINNING 4/1/03  
ACTUARIAL VALUATION  
FOR 12/15/04 BILLING

\*\*\*\*\*

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INTEREST AND DISCOUNT FACTORS, AND ASSUMPTIONS  
PFRS FYB 4/1/03

\*\*\*\*\* INTEREST AND DISCOUNT FACTORS \*\*\*\*\*

MONTHS	INTEREST FACTORS	DISCOUNT FACTORS
1	1.006434	0.993607
2.5	1.016163	0.984094
3.5	1.022701	0.977803
6	1.039230	0.962250
8.5	1.056027	0.946945
11	1.073096	0.931883

\*\*\*\*\* ASSUMPTIONS \*\*\*\*\*

THE VARIOUS MULTIPLE DECREMENT AND SALARY SCALE TABLES ARE THOSE ADOPTED AS A RESULT OF THE 2000 5-YEAR EXPERIENCE STUDY OF THE SYSTEMS.

INFLATION - BOTH THE INTEREST RATE AND THE SALARY SCALE ASSUMPTION REFLECT 3.0% INFLATION.

INTEREST RATE	8.0%
SALARY SCALE (1 year expected increase)	6.9%

ACTUARIAL PRESENT VALUE OF PLAN BENEFITS  
PFRS FYB 4/1/03 FOR FYE 3/31/05

PLAN	SERVICE	VESTING	ACCIDENTAL DISABILITY	COLA
<b>TIER 1</b>				
Contributory	\$47,936	\$0	\$1,468	\$4,108
375-c	1,312,689	16,720	22,396	74,658
375-e	0	0	0	0
375-g	2,628,892	11,048	27,286	61,327
375-h,i&j	50,897,680	412,445	593,512	935,990
384	5,309,647	0	86,721	145,956
384(f)	19,653,229	32,239	290,006	482,885
384-d	244,623,797	21,725	4,351,838	5,060,195
384-e	889,451,306	128,694	15,253,104	12,887,025
381-b	57,210,002	0	278,655	1,185,451
383-a,b&c	<u>13,925,044</u>	<u>56,054</u>	<u>306,399</u>	<u>305,214</u>
<b>TIER 1 TOTALS</b>	<b>\$1,285,060,222</b>	<b>\$678,925</b>	<b>\$21,211,385</b>	<b>\$21,142,809</b>
<b>TIER 2</b>				
Contributory	\$675,588	\$77,160	\$238,501	\$92,066
375-c&e	14,512,121	2,233,991	3,112,180	1,056,404
375-g	6,010,063	841,501	1,029,158	343,912
375-h, i&j	24,509,277	3,664,806	4,188,817	868,418
384	14,701,290	718,880	1,204,111	527,525
384(f)	45,636,012	2,247,272	3,265,519	1,151,748
384-d	2,072,362,167	31,013,266	144,621,061	45,502,797
384-e	4,927,640,544	61,055,671	317,095,053	67,646,723
381-b	1,406,558,219	11,320,897	74,121,350	21,897,141
383-a,b&c	<u>118,352,621</u>	<u>6,803,116</u>	<u>7,429,445</u>	<u>3,095,266</u>
<b>TIER 2 TOTALS</b>	<b>\$8,630,957,902</b>	<b>\$119,976,560</b>	<b>\$556,305,195</b>	<b>\$142,182,000</b>
 <b>GRAND TOTAL</b>	 <b>\$9,916,018,124</b>	 <b>\$120,655,485</b>	 <b>\$577,516,580</b>	 <b>\$163,324,809</b>

ACTUARIAL PRESENT VALUE OF PLAN BENEFITS  
PFRS FYB 4/1/03 FOR FYE 3/31/05

PLAN	ORDINARY DISABILITY	IPOD DISABILITY	ACCIDENTAL DEATH	ORDINARY DEATH	TOTAL PLANS PVB
TIER 1					
Contributory	\$0	\$0	\$12	\$115	\$53,639
375-c	3,294	7,637	196	42,019	1,479,609
375-e	0	0	0	0	0
375-g	1,867	4,356	231	115,808	2,850,815
375-h,i&j	67,091	146,929	5,135	1,916,672	54,975,454
384	0	0	866	135,422	5,678,612
384(f)	8,167	26,129	2,616	358,313	20,853,584
384-d	5,080	17,779	40,457	4,674,651	258,795,522
384-e	36,333	137,557	143,778	20,294,298	938,332,095
381-b	0	0	2,754	270,031	58,946,893
383-a,b&c	<u>19,160</u>	<u>44,706</u>	<u>3,092</u>	<u>174,305</u>	<u>14,833,974</u>
TIER 1 TOTALS	\$140,992	\$385,093	\$199,137	\$27,981,634	\$1,356,800,197
TIER 2					
Contributory	\$54,856	\$179,050	\$5,127	34,518	\$1,356,866
375-c&e	789,306	2,373,589	76,302	1,026,643	25,180,536
375-g	268,934	798,803	23,360	436,168	9,751,899
375-h, i&j	1,102,566	3,244,470	98,940	2,039,855	39,717,149
384	214,245	699,885	27,624	478,362	18,571,922
384(f)	602,425	1,953,417	68,735	1,392,722	56,317,850
384-d	12,200,248	41,634,610	3,627,229	56,990,747	2,407,952,125
384-e	23,140,175	79,295,987	7,211,090	169,235,272	5,652,320,515
381-b	7,297,337	17,397,761	2,029,015	30,324,424	1,570,946,144
383-a,b&c	<u>2,661,114</u>	<u>6,337,396</u>	<u>227,299</u>	<u>4,025,404</u>	<u>148,931,661</u>
TIER 2 TOTALS	\$48,331,206	\$153,914,968	\$13,394,721	\$265,984,115	\$9,931,046,667
GRAND TOTAL	\$48,472,198	\$154,300,061	\$13,593,858	\$293,965,749	\$11,287,846,864

PLAN MEMBERS AND THEIR COMPENSATION  
PFRS FYB 4/1/03 FOR FYE 3/31/05

PLAN	MEMBERS	4/1/02-3/31/03 SALARY	PROJECTED COMPENSATION (4/1/03-3/31/04)	PRESENT VALUE PROJECTED COMPENSATION
<b>TIER 1</b>				
Contributory	3	\$19,637	\$12,867	\$43,859
375-c	9	259,515	193,777	686,666
375-e	0	0	0	0
375-g	8	453,641	311,051	863,045
375-h,i&j	107	8,462,045	6,058,459	18,543,184
384	16	896,583	685,573	2,710,530
384(f)	47	3,203,703	2,487,655	8,955,318
384-d	512	40,254,572	33,397,584	138,240,230
384-e	1,298	136,648,845	114,930,269	481,635,905
381-b	91	8,059,639	4,089,232	8,921,838
383-a,b&c	<u>33</u>	<u>2,408,211</u>	<u>2,067,319</u>	<u>9,754,277</u>
<b>TIER 1 TOTALS</b>	<b>2,124</b>	<b>\$200,666,391</b>	<b>\$164,233,786</b>	<b>\$670,354,852</b>
<b>TIER 2</b>				
Contributory	75	807,299	755,586	10,460,385
375-c&e	524	8,781,452	8,505,632	146,024,379
375-g	140	2,960,997	2,866,484	46,018,028
375-h, i&j	337	12,156,134	11,769,969	191,670,607
384	130	4,754,419	4,476,805	53,084,438
384(f)	208	13,164,671	12,556,548	135,202,505
384-d	9,561	581,091,898	556,860,782	6,634,427,000
384-e	14,259	1,185,147,122	1,138,479,416	13,766,959,687
381-b	4,382	312,681,447	300,508,981	3,555,579,272
383-a,b&c	<u>679</u>	<u>36,597,440</u>	<u>34,903,086</u>	<u>433,723,171</u>
<b>TIER 2 TOTALS</b>	<b>30,295</b>	<b>\$2,158,142,879</b>	<b>\$2,071,683,289</b>	<b>\$24,973,149,472</b>
<b>GRAND TOTAL</b>	<b>32,419</b>	<b>\$2,358,809,270</b>	<b>\$2,235,917,075</b>	<b>\$25,643,504,324</b>

PRESENT VALUE OF INACTIVE  
AND PENDING RETIREMENT BENEFITS  
PFRS FYB 4/1/03 FOR FYE 3/31/05

	MEMBERS	LIABILITY	SALARY BASE
<b>INACTIVES</b>			
TIER 1	142	\$7,938,242	\$3,206,811
TIER 2	<u>2,769</u>	<u>28,852,561</u>	<u>46,720,113</u>
TOTAL	2,911	\$36,790,803	\$49,926,924
 <b>PENDING RETIREMENTS</b>			
TIER 1			
SEC 384-d	92	\$42,166,249	\$5,851,596
SEC 384-e	210	218,593,104	26,582,610
SEC 381-b	22	13,884,273	1,825,142
ACC DISABILITY	4	2,593,708	337,435
ORD DISABILITY	0	0	0
IPOD DISABILITY	<u>0</u>	<u>0</u>	<u>0</u>
SUB TOTAL	328	\$277,237,334	\$34,596,783
 TIER 2			
SEC 384-d	109	\$42,149,016	\$7,455,250
SEC 384-e	101	61,125,121	9,455,702
SEC 381-b	39	23,108,030	3,648,849
ACC DISABILITY	35	24,188,267	2,951,762
ORD DISABILITY	5	1,069,224	253,022
IPOD DISABILITY	<u>21</u>	<u>8,591,668</u>	<u>1,401,540</u>
SUB TOTAL	310	\$160,231,326	\$25,166,125
 TOTAL	 638	 \$437,468,660	 \$59,762,908



LATE START RATES, PRESENT VALUE OF LATE START CONTRIBUTIONS  
AND ONE-YEAR-FAS AND SICK LEAVE LIABILITIES  
PFRS FYB 4/1/03 FOR FYE 3/31/05

\*\*\*\*\* LATE START RATES AND P. V. OF LATE START CHARGES \*\*\*\*\*

PV LATE START CHARGE = LATE START RATE \* (PV PROJ. COMP. - COMP) \* 3.5 MO INT

PLAN	LATE ST RATE	PV PROJECTED COMPENSATION	COMPENSATION	PV LATE START CHARGES
TIER 1 384-e				
1990 ELECTIONS	0.054	336,940	80,402	\$14,168
1991 ELECTIONS	0.082	303,286,768	72,371,743	19,364,876
1992 ELECTIONS	0.093	68,534,933	16,354,134	4,962,978
1993 ELECTIONS	0.119	7,334,575	1,750,211	679,625
1994 ELECTIONS	0.089	52,099,245	12,432,172	3,610,512
1995 ELECTIONS	0.127	16,293,262	3,887,976	1,611,236
1996 ELECTIONS	0.141	1,799,219	429,338	197,538
1997 ELECTIONS	0.121	398,720	95,144	37,566
1998 ELECTIONS	0.136	6,835,217	1,631,052	723,833
384EX	0.082	327,903	78,246	20,937
TIER 1 383-b	0.001	<u>3,242,803</u>	729,832	<u>2,570</u>
SUBTOTAL TIER 1		\$460,489,584		\$31,225,839
TIER 2 384-e				
1990-1993 ELECTIONS	0.012	9,492,167,337	784,969,040	\$106,858,325
1994 ELECTIONS	0.024	2,568,408,163	212,398,372	57,827,846
1995 ELECTIONS	0.027	504,285,730	41,702,666	12,773,272
1996 ELECTIONS	0.019	58,559,851	4,842,695	1,043,795
1997 ELECTIONS	0.017	26,303,315	2,175,192	419,490
1998 ELECTIONS	0.018	167,255,741	13,831,465	2,824,329
384EX	0.012	<u>3,835,301</u>	317,166	<u>43,176</u>
SUBTOTAL TIER 2		\$12,820,815,439		\$181,790,233
GRAND TOTAL				\$213,016,072

***** ONE YEAR FAS LIABILITY *****		
	TIER 1 LIABILITY	TIER 2 LIABILITY
55 YEAR PLANS	\$3,066,722	\$298,757
384	251,726	185,377
384(f)	1,497,108	155,266
384-d	20,079,240	12,452,310
384-e	<u>85,225,223</u>	<u>88,797,271</u>
SUBTOTAL	\$110,120,019	\$101,888,981
GRAND TOTAL	\$212,009,000	

P.V. ONE YEAR FAS TIER 1 CONTRIBUTIONS = (P.V.COMP - COMP) \* .045 \* 3.5 MO. INT

	P.V. COMP	COMP	P.V. CONTRIBUTIONS
TIER 1	607,730,341	147,519,227	21,179,626

\*\*\*\*\* SICK LEAVE LIABILITY \*\*\*\*\*

	LIABILITY	PV SALARIES
TIER 1	758,173	25,554,912
TIER 2	<u>10,837,795</u>	<u>4,377,353,058</u>
TOTAL	\$11,595,968	\$4,402,907,970

10  
 FIVE YEAR MOVING AVERAGE VALUE OF INVESTMENTS  
 PFRS FYB 4/1/03 FOR FYE 3/31/05

FISCAL YEAR ENDED	MARKET VALUE	NET PURCHASES
3/31/99	72,649,451,000	
3/31/00	91,847,934,000	948,625,000
3/31/01	74,299,380,796	(635,449,000)
3/31/02	76,271,638,275	1,774,957,630
3/31/03	61,083,867,873	2,305,459,725

AVERAGE MARKET VALUE OF INVESTMENTS FOR PFRS ONLY =

$$\text{PFRS MV}_{03} - .8 * \text{PFRS UG}_{03} - .6 * \text{PFRS UG}_{02} - .4 * \text{PFRS UG}_{01} - .2 * \text{PFRS UG}_{00} = 13,699,178,316$$

WHERE PFRS MV = TOTAL MARKET VALUE \* 2003 % OF INVESTMENTS FOR PFRS

$$03 = 9,377,351,060$$

$$\text{UG} = (\text{AG} - \text{EG}) \% \text{ OF INVESTMENTS FOR PFRS,}$$

$$\text{AG} = \text{ACTUAL GAIN} = \text{MV}_T - \text{MV}_{T-1} - (\text{PURCHASES}_T - \text{SALES}_T) \text{ AND}$$

$$\text{EG} = \text{EXPECTED GAIN, ASSUMING A 7\% INCREASE IN MARKET VALUE, OMITTING ANY DIVIDEND PAYMENTS}$$

$$= .07 * \text{MV}_{T-1} - (\text{SALES}_T - \text{PURCHASES}_T) * (1.07)^{1/2}$$

	% OF INVESTMENTS	AG	EG	UG
3/31/00	15.6271	18,249,858,000	5,118,101,900	2,052,112,658
3/31/01	15.5313	(16,913,104,204)	6,407,490,823	(3,621,991,575)
3/31/02	15.4539	197,299,849	5,262,029,475	(782,698,252)
3/31/03	15.3516	(17,493,230,127)	5,418,341,037	(3,517,292,759)

THIS PFRS ACTUARIAL MARKET VALUE OF INVESTMENTS IS FURTHER CONSTRAINED TO BE WITHIN + OR - 20% OF THE 2003 PFRS MARKET VALUE OF INVESTMENTS.

80% OF 2003 PFRS MARKET VALUE = \$7,501,880,848

120% OF 2003 PFRS MARKET VALUE = \$11,252,821,272

PFRS ACTUARIAL VALUE OF INVESTMENTS, CONSTRAINED TO BE WITHIN + OR - 20% OF 2003 PFRS MARKET VALUE, IS \$11,252,821,272 .

PFRS ACTUARIAL VALUE OF INVESTMENTS	11,252,821,272
- PFRS MARKET VALUE OF INVESTMENTS	12,377- 9,377,351,060
= SMOOTHING ADJUSTMENT	1,875,470,212

PFRS PENSION ACCUMULATION FUND	7,194,985,406
+ SMOOTHING ADJUSTMENT	1,875,470,212
= PFRS PENSION ACCUMULATION FUND FOR VALUATION BALANCE SHEET	\$9,070,455,618

3.75 extra  
 14.22  
 149

PENSIONERS AND BENEFICIARIES  
PFRS FYB 4/1/03 FOR FYE 3/31/05

## ANNUAL ALLOWANCE

	<u>NUMBER</u>	<u>ANNUITY</u>	<u>PENSION</u>	<u>ORDINARY DEATH BENEFIT</u>
<u>SERVICE BENEFITS</u>				
PENSIONERS	20,207	2,295,883	569,345,303	
BENEFICIARIES	<u>935</u>	<u>198,386</u>	<u>10,577,372</u>	
SUB TOTAL	21,142	2,494,269	579,922,675	
<u>DISABILITY BENEFITS</u>				
PENSIONERS	4,684	161,708	129,769,719	
BENEFICIARIES	<u>185</u>	<u>19,993</u>	<u>1,515,808</u>	
SUB TOTAL	4,869	181,701	131,285,527	
ACCIDENTAL DEATH BENEFICIARIES	167		2,769,906	
DESIGNATED ANNUITANTS	78			710,408
GRAND TOTAL	26,256	2,675,970	713,978,108	710,408

## RESERVES

	<u>COLA</u>	<u>ANNUITY</u>	<u>PENSION</u>	<u>RESERVE FUND</u>
<u>SERVICE BENEFITS</u>				
PENSIONERS	\$856,276,793	\$15,352,495	\$5,594,562,893	
BENEFICIARIES	<u>23,171,362</u>	<u>1,297,668</u>	<u>90,898,153</u>	
SUB TOTAL	879,448,155	16,650,163	5,685,461,046	
<u>DISABILITY BENEFITS</u>				
PENSIONERS	264,971,451	1,177,247	1,345,159,272	
BENEFICIARIES	<u>5,383,170</u>	<u>133,734</u>	<u>13,967,954</u>	
SUB TOTAL	270,354,621	1,310,981	1,359,127,226	
ACCIDENTAL DEATH BENEFICIARIES	0	0	29,430,401	
DESIGNATED ANNUITANTS	0	0	0	6,751,046
SUB TOTAL	1,149,802,776	17,961,144	7,074,018,673	6,751,046
POST RETIREMENT DEATH (excess of \$50,000)			44	
GRAND TOTAL	\$1,149,802,776	\$17,961,144	\$7,074,018,717	\$6,751,046

## \*\*\*\*\* ACTUARIAL BALANCE SHEET \*\*\*\*\*

ACTUARIAL PRESENT VALUE OF BENEFITS  
PFRS FYB 4/1/03 FOR FYE 3/31/05

## PENSIONERS AND BENEFICIARIES

ANNUITY RESERVE FUND	\$17,961,144	
PENSION RESERVE FUND	7,074,018,717	
SPECIAL RESERVE FOR D. A.	6,751,046	
COLA	1,149,802,776	
SPECIAL ACC DTH BENEFITS-SEC 361-a	55,690,840	
TOTAL P.V. OF PENSIONER BENEFITS		\$8,304,224,523

## ACTIVE MEMBERS

ANNUITY SAVINGS FUND	\$14,804,272	
BENEFITS:		
MEMBER SERVICE BENEFITS	\$9,916,018,124	
VESTING BENEFITS	120,655,485	
ACCIDENTAL DISABILITY BENEFITS	577,516,580	
ORDINARY DISABILITY BENEFITS	48,472,198	
IPOD DISABILITY BENEFITS	154,300,061	
ACCIDENTAL DEATH BENEFITS	13,593,858	
DEATH BENEFITS OVER \$50,000	293,965,749	
SICK LEAVE	11,595,968	
ONE YEAR FAS BENEFITS	212,009,000	
PENDING RETIREMENTS	437,468,660	
INACTIVES	36,790,803	
COLA - ACTIVE BILLABLES	163,324,809	
RESTORATIONS	854,126	
PENDING TRANSFER-IN RESERVES	24,161,965	
TOTAL PV BENEFITS FOR ACTIVE MEMBERS		\$12,025,531,658

## MISCELLANEOUS (ALL OTHER FUNDS)

LIABILITIES PAYABLE	41,617,403	
LOAN INSURANCE RESERVE	98,474	
TOTAL MISCELLANEOUS LIABILITY		\$41,715,877

TOTAL ACTUARIAL PRESENT VALUE OF BENEFITS		\$20,371,472,058
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## \*\*\*\*\* ACTUARIAL BALANCE SHEET \*\*\*\*\*

ACTUARIAL PRESENT VALUE OF ASSETS  
PFRS FYB 4/1/03 FOR FYE 3/31/05

## PRESENT ASSETS OF SYSTEM \*

ANNUITY SAVINGS FUND		14,804,272
ANNUITY RESERVE FUND		17,961,144
PENSION RESERVE FUND		7,074,018,717
SPECIAL RESERVE FOR DESIGNATED ANNUITANTS		6,751,046
PENSION ACCUMULATION FUND		9,070,455,618
ALL OTHER FUNDS		
LIABILITIES PAYABLE	41,617,403	
LOAN INSURANCE RESERVE	98,474	
TOTAL OTHER FUNDS		\$41,715,877
TOTAL PRESENT VALUATION ASSETS		\$16,225,706,674

ACTUARIAL PRESENT VALUE OF PROSPECTIVE CONTRIBUTIONS  
PAYABLE BY EMPLOYERS TO PENSION ACCUMULATION FUND

NORMAL CONTRIBUTIONS	3,786,402,852
LATE START CONTRIBUTIONS	213,016,072
<i>Tier 1</i> 1 YEAR FAS CONTRIBUTIONS	21,179,626
RECEIVABLE - 12/15/03 EMPLOYER BILLING	125,166,834

TOTAL PROSPECTIVE CONTRIBUTIONS	4,145,765,384
TOTAL ACTUARIAL PRESENT VALUE OF ASSETS	\$20,371,472,058

\* SEE PAGE 33

CALCULATION OF INDICES  
PFRS FYB 4/1/03 for FYE 3/31/05

$$\text{PLAN NEW ENTRANT RATE} = \frac{\text{PLAN PV BENEFITS} * 3.5 \text{ MO. DISCOUNT}}{\text{PLAN PV COMPENSATION}}$$

$$\text{PLAN INDEX} = \frac{\text{PLAN NEW ENTRANT RATE}}{\text{TIER 1 CONTRIBUTORY NEW ENTRANT RATE}}$$

PLAN	BENEFITS	PRESENT VALUE OF COMPENSATION	NEW ENTRANT RATE	INDEX
<b>TIER 1</b>				
Contributory	133,145,739	1,413,988,395	0.092073	1.000000
375-c & e	208,363,375	1,413,988,395	0.144088	1.564927
375-g	227,197,764	1,413,988,395	0.157112	1.706384
375-h, i&j	235,371,445	1,413,988,395	0.162764	1.767773
384	233,414,335	1,423,514,221	0.160331	1.741343
384(f)	237,240,273	1,418,477,307	0.163538	1.776170
384-d	253,021,412	1,357,948,674	0.182190	1.978757
384-e	273,319,443	1,407,194,520	0.189919	2.062695
384ex				2.103949
381-b	275,901,566	1,324,065,631	0.203749	2.212907
383-a,b&c	237,741,702	1,423,514,221	0.163303	1.773626
Sick Leave	2,153,996	1,324,065,631	0.001591	0.017276
<b>TIER 2</b>				
Contributory	124,207,615	1,518,841,423	0.079963	0.868469
375-c & e	182,616,344	1,518,841,423	0.117565	1.276867
375-g	200,046,604	1,518,841,423	0.128786	1.398741
375-h, i&j	204,996,594	1,518,841,423	0.131973	1.433352
384	219,326,954	1,423,514,221	0.150654	1.636247
384(f)	231,535,341	1,418,477,307	0.159605	1.733459
384-d	240,532,878	1,357,948,674	0.173198	1.881090
384-e	266,730,048	1,407,194,520	0.185340	2.012966
384ex			0.189	2.053225
381-b	273,288,568	1,324,065,631	0.201820	2.191949
383-a,b&c	226,547,003	1,423,514,221	0.155614	1.690110
Sick Leave	1,616,259	1,324,065,631	0.001194	0.012963
<b>One Year FAS</b>				
55 Yr. Plans	21,738,141	1,518,841,423	0.013995	0.151995
384	23,459,428	1,423,514,221	0.016114	0.175015
384,f	24,796,462	1,418,477,307	0.017093	0.185646
384-d	25,851,775	1,357,948,674	0.018615	0.202174
384-e	28,758,779	1,407,194,520	0.019983	0.217038
384-ex				0.221379

INDEXED PRESENT VALUE PROJECTED FYE 3/31/04 COMPENSATION  
PFRS FYB 4/1/03 for FYE 3/31/05

PLAN	P.V. PROJECTED 2003 COMPENSATION	INDEX	INDEXED PV PROJ COMPENSATION
<b>TIER 1</b>			
Contributory	\$43,859	1.000000	\$43,859
375-c	686,666	1.564927	1,074,582
375-g	863,045	1.706384	1,472,686
375-h, i&j	18,543,184	1.767773	32,780,140
384	2,710,530	1.741343	4,719,962
384(f)	8,955,318	1.776170	15,906,170
384-d	138,240,230	1.978757	273,543,841
384-e	481,308,002	2.062695	992,791,492
384-ex	327,903	2.103949	689,891
381-b	8,921,838	2.212907	19,743,201
383-a,b&c	9,754,277	1.773626	17,300,443
Sick Leave	<u>25,554,912</u>	0.017276	<u>441,497</u>
<b>TIER 1 TOTAL</b>	<b>\$670,354,852 *</b>		<b>\$1,360,507,764</b>
<b>TIER 2</b>			
Contributory	\$10,460,385	0.868469	\$9,084,521
375-c&e	146,024,379	1.276867	186,453,763
375-g	46,018,028	1.398741	64,367,305
375-h & i	191,670,607	1.433352	274,731,403
384	53,084,438	1.636247	86,859,234
384(f)	135,202,505	1.733459	234,367,943
384-d	6,634,427,000	1.881090	12,479,956,855
384-e	13,763,124,386	2.012966	27,704,697,678
384-ex	3,835,301	2.053225	7,874,736
381-b	3,555,579,272	2.191949	7,793,649,855
383-a,b&c	433,723,171	1.690110	733,040,057
Sick Leave	4,377,353,058	0.012963	56,745,518
1 YR Fas - 55 yr plan	12,488,909	0.151995	1,898,248
1 YR Fas - 384	2,593,127	0.175015	453,835
1 YR Fas - 384 1/60	1,564,939	0.185646	290,525
1 YR Fas - 384D	299,852,299	0.202174	60,622,377
1 YR Fas - 384E	1,914,084,258	0.217038	<u>415,429,019</u>
<b>TIER 2 TOTAL</b>	<b>\$24,973,149,472 *</b>		<b>\$50,110,522,872</b>

\* DOES NOT INCLUDE SICK LEAVE OR 1 YR FAS.

INDEXED PROJECTED FYE 3/31/04 COMPENSATION \*  
PFRS FYB 4/1/03 for FYE 3/31/05

PLAN	PROJECTED 2003 COMPENSATION	INDEX	INDEXED PROJECTED COMPENSATION
TIER 1			
Contributory	12,867	1.000000	\$12,867
375-c	193,777	1.564927	303,247
375-g	311,051	1.706384	530,772
375-h, i&j	6,058,459	1.767773	10,709,980
384	685,573	1.741343	1,193,818
384(f)	2,487,655	1.776170	4,418,499
384-d	33,397,584	1.978757	66,085,707
384-e	114,852,023	2.062695	236,904,666
384-ex	78,246	2.103949	164,625
381-b	4,089,232	2.212907	9,049,091
383-a,b&c	2,067,319	1.773626	3,666,651
Sick Leave	<u>10,084,594</u>	0.017276	<u>174,226</u>
TIER 1 TOTAL	\$164,233,786 **		\$333,214,149
TIER 2			
Contributory	755,586	0.868469	656,203
375-c&e	8,505,632	1.276867	10,860,564
375-g	2,866,484	1.398741	4,009,469
375-h, i&j	11,769,969	1.433352	16,870,506
384	4,476,805	1.636247	7,325,157
384(f)	12,556,548	1.733459	21,766,256
384-d	556,860,782	1.881090	1,047,505,464
384-e	1,138,162,250	2.012966	2,291,081,600
384-ex	317,166	2.053225	651,213
381-b	300,508,981	2.191949	658,700,481
383-a,b&c	34,903,086	1.690110	58,990,070
Sick Leave	377,607,706	0.012963	4,895,092
1 YR Fas - 55 yr plan	854,566	0.151995	129,890
1 YR Fas - 384	350,307	0.175015	61,309
1 YR Fas - 384 1/60	261,737	0.185646	48,590
1 YR Fas - 384D	26,535,418	0.202174	5,364,775
1 YR Fas - 384E	<u>162,528,883</u>	0.217038	<u>35,274,944</u>
TIER 2 TOTAL	\$2,071,683,289 **		\$4,164,191,583

\* PROJECTED COMPENSATION EQUALS THE COMPENSATION FOR 3/31/04  
ATTRIBUTABLE TO THE MEMBERS ON ROLL AS OF 3/31/03.

\*\* DOES NOT INCLUDE SICK LEAVE OR 1 YR FAS.



BASIC PLAN'S NORMAL RATE  
PFRS FYB 4/1/03 for FYE 3/31/05

	INDEXED P.V. PROJECTED COMP.
TIER 1	\$1,360,507,764
TIER 2	<u>50,110,522,872</u>
TOTAL	\$51,471,030,636
	INDEXED PROJECTED COMP.
TIER 1	\$333,214,149
TIER 2	<u>4,164,191,583</u>
TOTAL	\$4,497,405,732
P. V. FUTURE NORMAL CONTRIBUTIONS	3,786,402,852
BASIC PLAN'S NORMAL RATE	
P.V.FUTURE NORMAL CONTRIBUTIONS (3.5 MO. DISCOUNT)	
BASIC RATE =	-----
	INDEXED PRESENT VALUE PROJECTED COMPENSATION - INDEXED PROJECTED COMPENSATION
	3,786,402,852 * 0.977803
=	-----
	\$46,973,624,904
=	0.078818

NORMAL RATES  
PFRS FYB 4/1/03 for FYE 3/31/05

PLAN	BASIC RATE (1)	INDEX (2)	REGULAR NORMAL RATE (1) * (2) = (3)	LATE START RATE (4)	BILLING * NORMAL RATE (3) + (4)
TIER 1					
Contributory	0.078818	1.000000	0.078818		0.078818
375-c	0.078818	1.564927	0.123344		0.123344
375-e	0.078818	1.564927	0.123344		0.123344
375-g	0.078818	1.706384	0.134494		0.134494
375-h,i&j	0.078818	1.767773	0.139332		0.139332
384	0.078818	1.741343	0.137249		0.137249
384(f)	0.078818	1.776170	0.139994		0.139994
384-d	0.078818	1.978757	0.155962		0.155962
384e	0.078818	2.062695	0.162577		0.162577
1990 ELECTIONS			0.162577	0.054	0.216577
1991 ELECTIONS			0.162577	0.082	0.244577
1992 ELECTIONS			0.162577	0.093	0.255577
1993 ELECTIONS			0.162577	0.119	0.281577
1994 ELECTIONS			0.162577	0.089	0.251577
1995 ELECTIONS			0.162577	0.127	0.289577
1996 ELECTIONS			0.162577	0.141	0.303577
1997 ELECTIONS			0.162577	0.121	0.283577
1998 ELECTIONS			0.162577	0.136	0.298577
1999 ELECTIONS			0.162577		0.162577
384ex	0.078818	2.103949	0.165829		0.165829
1990 ELECTIONS			0.165829	0.054	0.219829
1991 ELECTIONS			0.165829	0.082	0.247829
1992 ELECTIONS			0.165829	0.093	0.258829
1993 ELECTIONS			0.165829	0.119	0.284829
1994 ELECTIONS			0.165829	0.089	0.254829
1995 ELECTIONS			0.165829	0.127	0.292829
1996 ELECTIONS			0.165829	0.141	0.306829
1997 ELECTIONS			0.165829	0.121	0.286829
1998 ELECTIONS			0.165829	0.136	0.301829
1999 ELECTIONS			0.165829		0.165829
381-b	0.078818	2.212907	0.174417		0.174417
383-a	0.078818	1.773626	0.139794		0.139794
383-b			0.139794	0.001	0.140794
383-c			0.139794		0.139794
Sick Leave	0.078818	0.017276	0.001362		0.001362
TIER 2					
Contributory	0.078818	0.868469	0.068451		0.068451
375-c & e	0.078818	1.276867	0.100640		0.100640
375-g	0.078818	1.398741	0.110246		0.110246
375-h, i&j	0.078818	1.433352	0.112974		0.112974
384	0.078818	1.636247	0.128966		0.128966
384(f)	0.078818	1.733459	0.136628		0.136628
384-d	0.078818	1.881090	0.148264		0.148264
384e	0.078818	2.012966	0.158658		0.158658
1990-1993 ELECTIONS			0.158658	0.012	0.170658
1994 ELECTIONS			0.158658	0.024	0.182658
1995 ELECTIONS			0.158658	0.027	0.185658
1996 ELECTIONS			0.158658	0.019	0.177658
1997 ELECTIONS			0.158658	0.017	0.175658
1998 ELECTIONS			0.158658	0.018	0.176658
1999 ELECTIONS			0.158658		0.158658

\* BILLING NORMAL RATES CAN NOT BE LESS THAN ZERO, NOR CAN THEY BE LESS THAN THE LATE START RATE.

CALCULATION OF NORMAL RATES (CONTINUED)  
PFRS FYB 4/1/03 for FYE 3/31/05

PLAN	BASIC RATE (1)	INDEX (2)	REGULAR NORMAL RATE (1) * (2) = (3)	LATE START RATE (4)	BILLING * NORMAL RATE (3) + (4)
TIER 2 (CONTINUED)					
384ex	0.078818	2.053225	0.161831		
1990-1993 ELECTIONS			0.161831	0.012	0.173831
1994 ELECTIONS			0.161831	0.024	0.185831
1995 ELECTIONS			0.161831	0.027	0.188831
1996 ELECTIONS			0.161831	0.019	0.180831
1997 ELECTIONS			0.161831	0.017	0.178831
1998 ELECTIONS			0.161831	0.018	0.179831
1999 ELECTIONS			0.161831		0.161831
381-b	0.078818	2.191949	0.172765		0.172765
383-a,b&c	0.078818	1.690110	0.133211		0.133211
Sick Leave	0.078818	0.012963	0.001022		0.001022
One-year-fas					
Age 55 plans	0.078818	0.151995	0.011980		0.011980
25 year plans	0.078818	0.175015	0.013794		0.013794
25 year w/ 1/60 plans	0.078818	0.185646	0.014632		0.014632
20 year plans	0.078818	0.202174	0.015935		0.015935
20 year w/ 1/60 plans	0.078818	0.217038	0.017107		0.017107
20 yr w/ 1/60 384-ex	0.078818	0.221379	0.017449		0.017449

RATES FOR PLANS NOT INDEPENDENTLY VALUED

PLAN	NON-CONTRIB RATE (1)	RATIO (2)	REGULAR NORMAL RATE (1) * (2) = (3)	BILLING * NORMAL RATE
TIER 1				
384 1/2	0.137249	0.603145	0.082781	0.082781
384 3/4	0.137249	0.736658	0.101106	0.101106
384 4/4	0.137249	0.870171	0.119430	0.119430
384-d 1/2	0.155962	0.562781	0.087772	0.087772
384-d 4/4	0.155962	0.811937	0.126631	0.126631
TIER 2				
384 1/2	0.128966	0.610620	0.078749	0.078749
384 3/4	0.128966	0.745790	0.096182	0.096182
384 4/4	0.128966	0.880960	0.113614	0.113614
384-d 1/2	0.148264	0.583308	0.086484	0.086484
384-d 4/4	0.148264	0.841556	0.124772	0.124772

\* BILLING NORMAL RATES CAN NOT BE LESS THAN ZERO, NOR CAN THEY BE LESS THAN THE LATE START RATE.

ADMINISTRATIVE AND GROUP LIFE INSURANCE RATES  
PFRS FYB 4/1/03 for FYE 3/31/05

\*\*\*\*\* ADMINISTRATIVE RATE \*\*\*\*\*

THE 2003 PFRS ADMINISTRATIVE EXPENSES WERE 80% OF THE 2002 EXPENSES DUE TO THE METHOD EMPLOYED TO ALLOCATE EXPENSES. THE VARIABLES THAT GO INTO THIS METHOD CHANGE EACH YEAR, CREATING HIGH VOLATILITY. THUS, WE WILL ASSUME THAT THERE WILL BE NO OVERBILL FOR 2004 AND THAT 2005 EXPENSES ARE SAME AS 2003 EXPENSES.

$$\begin{array}{r} \text{ADMINISTRATIVE RATE} = \frac{\text{ADMINISTRATIVE EXPENSES}}{\text{ESTIMATED BILLING SALARY}} = \\ \\ \frac{8,346,833}{2,566,347,389} = 0.003252 = 0.4 \% \end{array}$$

ESTIMATED BILLING SALARY IS ESTIMATED SALARY TO BE USED IN THE 12/15/04 NON-STATE BILLING AND THE 9/1/04 STATE BILLING.

WE ALWAYS ROUND THE RATE TO THE NEXT HIGHEST TENTH OF A PERCENT SINCE THE ADMINISTRATIVE EXPENSE MUST BE PAID.

\*\*\*\*\* GROUP LIFE INSURANCE RATES \*\*\*\*\*

THE PFRS PORTION OF THE GTLI EQUITY IN THE COMMON RETIREMENT FUND ON 4/1/2004 IS ESTIMATED TO BE APPROXIMATELY \$5,513,000. THE GTLI EQUITY APPRECIATES WITH INTEREST AT THE RATE ACCRUED BY OUR SHORT-TERM INVESTMENT POOL, A NON-VOLATILE INVESTMENT VEHICLE. CLAIMS FOR THE 2005 FISCAL YEAR ARE ESTIMATED TO BE APPROXIMATELY \$1.65 MILLION. ON ANY GIVEN DAY, THE AMOUNT PAYABLE FOR OUTSTANDING GTLI BENEFITS ARE ESTIMATED TO BE APPROXIMATELY \$1.4 MILLION. DUE TO THE LARGE RESERVE, THE ACTUARY HAS DECLARED AN EXPERIENCE RATING CREDIT WITH EQUAL TO 100%. THE NET PREMIUM REQUIRED FOR 2005 IS THEREFORE EQUAL TO ZERO.

PFRS TIER 1 FINAL RATES  
(as a percent)  
PFRS FYB 4/1/03 for FYE 3/31/05

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	7.9	0.4	0.0		8.3
SEC 375-c	12.3	0.4	0.0		12.7
SEC 375-e	12.3	0.4	0.0		12.7
SEC 375-g	13.4	0.4	0.0		13.8
SEC 375-h	13.9	0.4	0.0	0.1	14.4
SEC 375-i	13.9	0.4	0.0		14.3
SEC 375-j	13.9	0.4	0.0		14.3
25 YR CONT (384 1/2)	8.3	0.4	0.0		8.7
25 YR CONT (384 3/4)	10.1	0.4	0.0		10.5
25 YR CONT (384 4/4)	11.9	0.4	0.0		12.3
25 YR (384 NON-CONTRIBUTORY)	13.7	0.4	0.0		14.1
25 YR ADDL 1/60 (384(f)) 20 YR CONT (384	14.0	0.4	0.0		14.4
20 YR CONT (384-d 1/2)	8.8	0.4	0.0		9.2
20 YR CONT (384-d 4/4)	12.7	0.4	0.0		13.1
20 YR (384-d NON-CONTRIBUTORY)	15.6	0.4	0.0		16.0
20 YR ADDL 1/60 (384-e)					
1990 ELECTIONS	21.7	0.4	0.0		22.1
1991 ELECTIONS	24.5	0.4	0.0		24.9
1992 ELECTIONS	25.6	0.4	0.0		26.0
1993 ELECTIONS	28.2	0.4	0.0		28.6
1994 ELECTIONS	25.2	0.4	0.0		25.6
1995 ELECTIONS	29.0	0.4	0.0		29.4
1996 ELECTIONS	30.4	0.4	0.0		30.8
1997 ELECTIONS	28.4	0.4	0.0		28.8
1998 ELECTIONS	29.9	0.4	0.0		30.3
1999 & LATER ELECTIONS	16.3	0.4	0.0		16.7
20 YR ADDL 1/60 (384ex) - all service					
1990 ELECTIONS	22.0	0.4	0.0		22.4
1991 ELECTIONS	24.8	0.4	0.0		25.2
1992 ELECTIONS	25.9	0.4	0.0		26.3
1993 ELECTIONS	28.5	0.4	0.0		28.9
1994 ELECTIONS	25.5	0.4	0.0		25.9
1995 ELECTIONS	29.3	0.4	0.0		29.7
1996 ELECTIONS	30.7	0.4	0.0		31.1
1997 ELECTIONS	28.7	0.4	0.0		29.1
1998 ELECTIONS	30.2	0.4	0.0		30.6
1999 & LATER ELECTIONS	16.6	0.4	0.0		17.0
381-b STATE POLICE	17.4	0.4	0.0	0.1	17.9
383-a PARK POLICE	14.0	0.4	0.0	0.1	14.5
383-b ENCON POLICE	14.1	0.4	0.0	0.1	14.6
383-c FOREST RANGERS	14.0	0.4	0.0	0.1	14.5

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

SICK LEAVE	0.1
5% ITHP	3.5
8% ITHP	4.4
ONE YEAR FAS	4.5

PFRS TIER 2 FINAL RATES  
(as a percent)  
PFRS FYB 4/1/03 for FYE 3/31/05

RETIREMENT PLAN	NORMAL RATE	ADMN RATE	GROUP LIFE RATE	SICK LEAVE RATE	TOTAL FINAL RATE
CONTRIBUTORY	6.8	0.4	0.0		7.2
SEC 375-c	10.1	0.4	0.0		10.5
SEC 375-e	10.1	0.4	0.0		10.5
SEC 375-g	11.0	0.4	0.0		11.4
SEC 375-h	11.3	0.4	0.0	0.1	11.8
SEC 375-i	11.3	0.4	0.0		11.7
SEC 375-j	11.3	0.4	0.0		11.7
25 YR CONT (384 1/2)	7.9	0.4	0.0		8.3
25 YR CONT (384 3/4)	9.6	0.4	0.0		10.0
25 YR CONT (384 4/4)	11.4	0.4	0.0		11.8
25 YR (384 NON-CONTRIBUTORY)	12.9	0.4	0.0		13.3
25 YR ADDL 1/60 (384(f))	13.7	0.4	0.0		14.1
20 YR CONT (384-d 1/2)	8.6	0.4	0.0		9.0
20 YR CONT (384-d 4/4)	12.5	0.4	0.0		12.9
20 YR (384-d NON-CONTRIBUTORY)	14.8	0.4	0.0		15.2
20 YR ADDL 1/60 (384-e)					
1990-1993 ELECTIONS	17.1	0.4	0.0		17.5
1994 ELECTIONS	18.3	0.4	0.0		18.7
1995 ELECTIONS	18.6	0.4	0.0		19.0
1996 ELECTIONS	17.8	0.4	0.0		18.2
1997 ELECTIONS	17.6	0.4	0.0		18.0
1998 ELECTIONS	17.7	0.4	0.0		18.1
1999 & LATER ELECTIONS	15.9	0.4	0.0		16.3
20 YR ADDL 1/60 (384-ex) - all service					
1990-1993 ELECTIONS	17.4	0.4	0.0		17.8
1994 ELECTIONS	18.6	0.4	0.0		19.0
1995 ELECTIONS	18.9	0.4	0.0		19.3
1996 ELECTIONS	18.1	0.4	0.0		18.5
1997 ELECTIONS	17.9	0.4	0.0		18.3
1998 ELECTIONS	18.0	0.4	0.0		18.4
1999 & LATER ELECTIONS	16.2	0.4	0.0		16.6
381-b STATE POLICE	17.3	0.4	0.0	0.1	17.8
383-a&b ENCONIPARK POLICE	13.3	0.4	0.0	0.1	13.8
383-c FOREST RANGERS	13.3	0.4	0.0	0.1	13.8

OPTIONS - ADDITIONAL RATES (NON-STATE ONLY)

SICK LEAVE	0.1
5% ITHP	3.3
8% ITHP	3.3
ONE YEAR FAS	
AGE 55 PLANS	1.2
25 YEAR PLANS	1.4
25 YEAR W/ 1/60 PLANS	1.5
20 YEAR PLANS	1.6
20 YEAR W/ 1/60 PLANS	1.7
20 YEAR W/ 1/60 PLANS 384-ex	1.7

1.3 Ex  
back 375IP 384d →  
384e →

## CALCULATION OF FUNDS FOR STUDY PURPOSES

THE 2003 FUNDS WERE ATTRIBUTED TO EACH PLAN BY THE FORMULA

(3.5/12)

PLAN LIABILITIES - (NORMAL RATE)(PV SALARY)(1+i)

(does not include  
death benefits)

PLAN	TIER 1	TIER 2
Contributory	49,989	590,070
375-c	1,350,971	
375-c&e		9,124,388
375-g	2,616,298	9,315,731
375-h,i&j	50,416,471	15,174,020
384	5,162,727	18,093,560
384(f)	19,213,120	35,417,724
384-d	232,071,210	2,350,961,378
384-e	837,957,322	3,139,187,871
381-b	57,193,449	1,540,621,720
383-a,b&c	13,037,848	144,906,257
Sick Leave	722,577	6,262,584
One Year FAS - 55 Yr		285,704
One Year FAS - 384		185,377
One Year FAS - 384F		136,092
One Year FAS - 384D		8,222,252
One Year FAS - 384E		60,154,606
GRAND TOTAL	8,558,431,317	

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ----- STATE

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY				
AGE 55 375-C				
AGE 55 375-E				
AGE 55 375-G				
AGE 55 375-H	32	2,319,898.78	6	417,287.91
AGE 55 375-I				
AGE 55 375-J				
STATE POLICE 381-B	91	8,059,641.60	4,382	308,813,277.12
REG PARK POL 383-A	19	1,409,134.27	299	12,981,529.30
ENCON POLICE 383-B	12	867,139.91	268	15,822,353.18
FOREST RANGER 383-C	2	131,937.09	112	6,380,554.26
25 YR CONTRIBUTORY				
25 YR NON-CONTRIB				
25 YR 384(F) CONTRB				
25 YR 384(F) NON-CN				
20 YR CONTRIBUTORY				
20 YR NON-CONTRIB				
384-E CONTRIBUTORY				
384-E NON-CONTRIB				
<b>SUB-TOTAL</b>	156	12,787,751.65	5,067	344,415,001.77
INACTIVE NON-VESTED			299	2,056,682.28
INACTIVE VESTED	16	276,297.92	199	4,699,635.11
PENDING RETIREMENTS	22	1,825,142.61	43	3,935,933.47
PENDING DEATHS				
<b>SUB-TOTAL</b>	38	2,101,440.53	541	10,692,250.86
<b>TIER TOTAL</b>	194	\$14,889,192.18	5,608	\$355,107,252.63



PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ----- COUNTIES

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY				
AGE 55 375-C				
AGE 55 375-E				
AGE 55 375-G				
AGE 55 375-H				
AGE 55 375-I	10	1,314,938.50		
AGE 55 375-J				
STATE POLICE 381-B				
REG PARK POL 383-A				
ENCON POLICE 383-B				
FOREST RANGER 383-C				
25 YR CONTRIBUTORY				
25 YR NON-CONTRIB	1	82,236.01	6	269,472.24
25 YR 384(F) CONTRB				
25 YR 384(F) NON-CN	2	131,655.33	14	779,006.50
20 YR CONTRIBUTORY				
20 YR NON-CONTRIB	18	1,985,007.73	242	21,917,107.89
384-E CONTRIBUTORY				
384-E NON-CONTRIB	649	79,432,961.87	4,589	462,471,195.84
<b>SUB-TOTAL</b>	<b>680</b>	<b>82,946,799.44</b>	<b>4,851</b>	<b>485,436,782.47</b>
INACTIVE NON-VESTED			171	1,192,691.93
INACTIVE VESTED	24	902,127.95	49	2,378,656.00
PENDING RETIREMENTS	89	10,751,698.22	35	3,697,291.41
PENDING DEATHS			2	200,206.47
<b>SUB-TOTAL</b>	<b>113</b>	<b>11,653,826.17</b>	<b>257</b>	<b>7,468,845.81</b>
<b>TIER TOTAL</b>	<b>793</b>	<b>\$94,600,625.61</b>	<b>5,108</b>	<b>\$492,905,628.28</b>

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— CITIES

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY				
AGE 55 375-C				
AGE 55 375-E				
AGE 55 375-G	4	250,704.24	31	1,122,976.28
AGE 55 375-H				
AGE 55 375-I	35	2,346,961.97	61	3,220,374.78
AGE 55 375-J	2	211,572.63	1	71,929.10
STATE POLICE 381-B				
REG PARK POL 383-A				
ENCON POLICE 383-B				
FOREST RANGER 383-C				
25 YR CONTRIBUTORY				
25 YR NON-CONTRIB	12	725,923.80	32	1,904,332.53
25 YR 384(F) CONTRB				
25 YR 384(F) NON-CN	34	2,273,874.73	54	3,008,474.13
20 YR CONTRIBUTORY				
20 YR NON-CONTRIB	292	20,536,300.85	4,973	278,499,399.08
384-E CONTRIBUTORY				
384-E NON-CONTRIB	426	32,172,672.18	5,620	365,525,744.58
<b>SUB-TOTAL</b>	<b>805</b>	<b>58,518,010.40</b>	<b>10,772</b>	<b>653,353,230.48</b>
INACTIVE NON-VESTED			336	4,652,454.25
INACTIVE VESTED	53	977,062.23	325	10,877,822.15
PENDING RETIREMENTS	99	7,506,629.56	141	9,734,315.36
PENDING DEATHS	1	85,713.25	9	581,448.38
<b>SUB-TOTAL</b>	<b>153</b>	<b>8,569,405.04</b>	<b>811</b>	<b>25,846,040.14</b>
<b>TIER TOTAL</b>	<b>958</b>	<b>\$67,087,415.44</b>	<b>11,583</b>	<b>\$679,199,270.62</b>

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— TOWNS

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY	2	13,055.62	34	264,887.23
AGE 55 375-C	5	164,754.76	181	3,207,179.32
AGE 55 375-E			12	204,000.39
AGE 55 375-G	1	7,822.56	52	811,515.79
AGE 55 375-H				
AGE 55 375-I	11	902,503.28	52	2,279,181.08
AGE 55 375-J				
STATE POLICE 381-B				
REG PARK POL 383-A				
ENCON POLICE 383-B				
FOREST RANGER 383-C				
25 YR CONTRIBUTORY				
25 YR NON-CONTRIB	1	3,631.20	34	836,219.10
25 YR 384(F) CONTRB				
25 YR 384(F) NON-CN	2	129,842.63	4	240,558.60
20 YR CONTRIBUTORY				
20 YR NON-CONTRIB	89	8,186,808.35	1,825	118,524,305.99
384-E CONTRIBUTORY				
384-E NON-CONTRIB	101	9,197,544.00	1,344	96,022,484.31
<b>SUB-TOTAL</b>	212	18,605,962.40	3,538	222,390,331.81
INACTIVE NON-VESTED			175	1,988,924.59
INACTIVE VESTED	15	279,470.08	226	6,216,458.80
PENDING RETIREMENTS	28	2,266,106.18	36	2,893,191.85
PENDING DEATHS	1	56,774.32	2	165,274.95
<b>SUB-TOTAL</b>	44	2,602,350.58	439	11,263,850.19
<b>TIER TOTAL</b>	256	\$21,208,312.98	3,977	\$233,654,182.00

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ----- VILLAGES

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY	1	6,581.09	41	382,595.62
AGE 55 375-C	4	94,759.83	265	2,990,205.01
AGE 55 375-E			50	556,938.19
AGE 55 375-G	2	52,746.74	57	901,935.62
AGE 55 375-H				
AGE 55 375-I	13	1,009,196.84	194	4,356,098.56
AGE 55 375-J			7	313,463.50
STATE POLICE 381-B				
REG PARK POL 383-A				
ENCON POLICE 383-B				
FOREST RANGER 383-C				
25 YR CONTRIBUTORY			2	22,750.00
25 YR NON-CONTRIB	2	84,792.36	42	861,896.34
25 YR 384(F) CONTRB				
25 YR 384(F) NON-CN	3	234,021.42	33	3,722,220.93
20 YR CONTRIBUTORY			5	55,656.80
20 YR NON-CONTRIB	109	9,147,583.94	2,338	139,027,050.78
384-E CONTRIBUTORY				
384-E NON-CONTRIB	55	5,523,598.60	688	49,241,349.56
<b>SUB-TOTAL</b>	189	16,153,280.82	3,722	202,432,160.91
INACTIVE NON-VESTED			486	3,951,925.04
INACTIVE VESTED	25	548,715.09	389	6,320,406.81
PENDING RETIREMENTS	22	1,750,163.34	31	2,402,764.04
PENDING DEATHS	1	47,028.78	2	48,335.44
<b>SUB-TOTAL</b>	48	2,345,907.21	908	12,723,431.33
<b>TIER TOTAL</b>	237	\$18,499,188.03	4,630	\$215,155,592.24

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ——— MISCELLANEOUS

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY				
AGE 55 375-C			16	687,572.19
AGE 55 375-E				
AGE 55 375-G	1	142,367.60		
AGE 55 375-H				
AGE 55 375-I	4	356,974.13	15	761,666.36
AGE 55 375-J			1	53,480.65
STATE POLICE 381-B				
REG PARK POL 383-A				
ENCON POLICE 383-B				
FOREST RANGER 383-C				
25 YR CONTRIBUTORY				
25 YR NON-CONTRIB			14	605,535.13
25 YR 384(F) CONTRB				
25 YR 384(F) NON-CN	6	434,309.47	103	5,205,093.99
20 YR CONTRIBUTORY				
20 YR NON-CONTRIB	4	398,886.14	177	12,730,379.67
384-E CONTRIBUTORY				
384-E NON-CONTRIB	67	10,322,101.46	2,019	193,476,972.50
<b>SUB-TOTAL</b>	<b>82</b>	<b>11,654,638.80</b>	<b>2,345</b>	<b>213,520,700.49</b>
INACTIVE NON-VESTED			71	998,236.74
INACTIVE VESTED	9	223,137.70	43	1,424,715.08
PENDING RETIREMENTS	68	13,171,316.39	24	3,518,405.70
PENDING DEATHS			2	303,587.62
<b>SUB-TOTAL</b>	<b>77</b>	<b>13,394,454.09</b>	<b>140</b>	<b>6,244,945.14</b>
<b>TIER TOTAL</b>	<b>159</b>	<b>\$25,049,092.89</b>	<b>2,485</b>	<b>\$219,765,645.63</b>

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ----- TOTAL BY TIER

	TIER 1		TIER 2	
	NUMBER	SALARIES	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY	3	19,636.71	75	647,482.85
AGE 55 375-C	9	259,514.59	462	6,884,956.52
AGE 55 375-E	0	0.00	62	760,938.58
AGE 55 375-G	8	453,641.14	140	2,836,427.69
AGE 55 375-H	32	2,319,898.78	6	417,287.91
AGE 55 375-I	73	5,930,574.72	322	10,617,320.78
AGE 55 375-J	2	211,572.63	9	438,873.25
STATE POLICE 381-B	91	8,059,641.60	4,382	308,813,277.12
REG PARK POL 383-A	19	1,409,134.27	299	12,981,529.30
ENCON POLICE 383-B	12	867,139.91	268	15,822,353.18
FOREST RANGER 383-C	2	131,937.09	112	6,380,554.26
25 YR CONTRIBUTORY	0	0.00	2	22,750.00
25 YR NON-CONTRIB	16	896,583.37	128	4,477,455.34
25 YR 384(F) CONTRB	0	0.00	0	0.00
25 YR 384(F) NON-CN	47	3,203,703.58	208	12,955,354.15
20 YR CONTRIBUTORY	0	0.00	5	55,656.80
20 YR NON-CONTRIB	512	40,254,587.01	9,555	570,698,243.41
384-E CONTRIBUTORY	0	0.00	0	0.00
384-E NON-CONTRIB	1,298	136,648,878.11	14,260	1,166,737,746.79
<b>SUB-TOTAL</b>	<b>2,124</b>	<b>200,666,443.51</b>	<b>30,295</b>	<b>2,121,548,207.93</b>
INACTIVE NON-VESTED	0	0.00	1,538	14,840,914.83
INACTIVE VESTED	142	3,206,810.97	1,231	31,917,693.95
PENDING RETIREMENTS	328	37,271,056.30	310	26,181,901.83
PENDING DEATHS	3	189,516.35	17	1,298,852.86
<b>SUB-TOTAL</b>	<b>473</b>	<b>40,667,383.62</b>	<b>3,096</b>	<b>74,239,363.47</b>
<b>TIER TOTAL</b>	<b>2,597</b>	<b>\$241,333,827.13</b>	<b>33,391</b>	<b>\$2,195,787,571.40</b>

PFRS DISTRIBUTION SCHEDULE OF MEMBERSHIP  
AS OF MARCH 31, 2003 ----- GRAND TOTAL

	NUMBER	SALARIES
AGE 55/60 CONTRIBUTORY	78	\$667,119.56
AGE 55 375-C	471	7,144,471.11
AGE 55 375-E	62	760,938.58
AGE 55 375-G	148	3,290,068.83
AGE 55 375-H	38	2,737,186.69
AGE 55 375-I	395	16,547,895.50
AGE 55 375-J	11	650,445.88
STATE POLICE 381-B	4,473	316,872,918.72
REG PARK POL 383-A	318	14,390,663.57
ENCON POLICE 383-B	280	16,689,493.09
FOREST RANGER 383-C	114	6,512,491.35
25 YR CONTRIBUTORY	2	22,750.00
25 YR NON-CONTRIB	144	5,374,038.71
25 YR 384(F) CONTRB	0	0.00
25 YR 384(F) NON-CN	255	16,159,057.73
20 YR CONTRIBUTORY	5	55,656.80
20 YR NON-CONTRIB	10,067	610,952,830.42
384-E CONTRIBUTORY	0	0.00
384-E NON-CONTRIB	15,558	1,303,386,624.90
<b>SUB-TOTAL</b>	<b>32,419</b>	<b>2,322,214,651.44</b>
INACTIVE NON-VESTED	1,538	14,840,914.83
INACTIVE VESTED	1,373	35,124,504.92
PENDING RETIREMENTS	638	63,452,958.13
PENDING DEATHS	20	1,488,369.21
<b>SUB-TOTAL</b>	<b>3,569</b>	<b>114,906,747.09</b>
<b>GRAND TOTAL</b>	<b>35,988</b>	<b>\$2,437,121,398.53</b>

## NUMBER OF ACTIVE MEMBERS

	<u>TIER 1</u>	<u>TIER 2</u>	<u>TOTAL</u>
STATE	156	5,067	5,223
COUNTIES	680	4,851	5,531
CITIES	805	10,772	11,577
TOWNS	212	3,538	3,750
VILLAGES	189	3,722	3,911
MISC	82	2,345	2,427
TOTAL	2,124	30,295	32,419

## ACTIVE MEMBERS SALARIES

STATE	12,787,751.65	344,415,001.77	357,202,753.42
COUNTIES	82,946,799.44	485,436,782.47	568,383,581.91
CITIES	58,518,010.40	653,353,230.48	711,871,240.88
TOWNS	18,605,962.40	222,390,331.81	240,996,294.21
VILLAGES	16,153,280.82	202,432,160.91	218,585,441.73
MISC	11,654,638.80	213,520,700.49	225,175,339.29
TOTAL	200,666,443.51	2,121,548,207.93	2,322,214,651.44



## AMORTIZATION PAYMENT AMOUNTS AND PRESENT VALUES

THE ANNUAL LOCAL PAYMENT FOR THE AMORTIZATION OF THE 1988 & 1989 BILLS IS \$27,048,196, WITH LAST PAYMENT DUE 12/15/2005, AND PRESENT VALUE AS OF 4/1/03 OF \$70,476,480.

PAYMENTS FOR LOCAL MISCELLANEOUS AMORTIZATIONS, DUE TO SUCH ITEMS AS CHAPTERED LAWS AND PRIOR YEAR ADJUSTMENTS, HAVE A PRESENT VALUE AS OF 4/1/03 OF \$44,652,678.

PAYMENTS FOR CHAPTER 358, LAWS OF 2002, AND CHAPTER 596, LAWS OF 2002, BY THE STATE HAVE A PRESENT VALUE OF \$4,730,000 AS OF 4/1/03.

THE ABOVE PRESENT VALUES, MINUS ANY CREDITS DUE TO ADVANCE PAYMENTS, HAVE BEEN INCLUDED IN THE "PRESENT ASSETS" OF THE SYSTEM, DESPITE THE FACT THAT THEY HAVE NOT YET BEEN RECEIVED.

COMPARISON OF ACCOUNTING'S NET ASSETS AVAILABLE  
FOR BENEFITS WITH ACTUARIAL ASSETS

	ERS	PFRS	GLIP	TOTAL
ACCOUNTING'S NET ASSETS AVAILABLE FOR BENEFITS	82,521,636,193	14,813,579,651	37,453,491	97,372,669,335
PLUS LIABILITIES PAYABLE FROM ACCOUNTING'S BALANCE SHEETS	340,078,343	41,617,403	20,340,234	402,035,980
SUBTOTAL - ACCOUNTING'S BALANCE SHEET ASSETS	82,861,714,536	14,855,197,054	57,793,725	97,774,705,315
DIFFERENCE BETWEEN MARKET VALUE AND AMORTIZED VALUE OF BONDS AND MORTGAGE LOANS	(2,784,123,830)	(504,922,173)		
NON-MEMBER CONTRIBUTIONS IN THE PA FUND	(35,215,817)	(38,419)		
ADMINISTRATIVE OVERBILL ACCT	2,782,670	0		
5-YEAR SMOOTHING ADJUSTMEN	10,341,303,363	1,875,470,212		
TOTAL - ACTUARIAL ASSETS	90,386,460,922	16,225,706,674	57,793,725	106,669,961,321

**Minras, Omegas and Retirement Assumptions**

**PFRS – Tier 1**

Plan or Group		Minra	Assumed Omega	Retirement Assumption
371-a	(2020)	55	70	T1P55
375-c	(2025)	55	70	T1P55
375-e	(2030)	55	70	T1P55
375-g	(2035)	55	70	T1P55
375-h & i	(2050)	55	70	T1P55
375-j	(2038)	55	70	T1P55
384	(2060)	MIN (60,25 YRS)	70	YR25W70
384(f)	(2105)	MIN (60,25 YRS)	62	YR25W70
384-d	(2075,2039,2108)	MIN (62,20 YRS)	62	YR20W62
384-e	(2106)	MIN (62,20 YRS)	62	OR20E62
381-b	(2095)	MIN (20 YRS W)	57	OR20S57
383-a	(2100)	MIN (60,25 YRS)	70	YR25W70
383-b	(2101)	MIN (60,25 YRS)	70	YR25W70
SEC 375-h	(2040)	55	70	T1P55
NON-SEC 375-h	(2045)	55	70	T1P55
1 YR FAS – REG	(2155)	55	70	T1P55
1 YR FAS – 384	(2160)	MIN (60,25 YRS)	70	YR25W70
1 YR FAS – 384(f)	(2170)	MIN (60,25 YRS)	62	YR25W70
1 YR FAS – 384-d	(2165,2166)	MIN (62,20 YRS)	62	YR20W62
1 YR FAS – 384-e	(2167)	MIN (62,20 YRS)	62	OR20E62
SICK LEAVE	(2152,2153)	MIN (20 YRS W)	57	OR20S57
PEND SERV 384-d	(2004,2011)	N/A	N/A	T1P55
PEND SERV 384-e	(2003)	N/A	N/A	T1P55
PEND SERV 381-b	(2010)	N/A	N/A	T1P55
PEND ACC DIS	(2012)	N/A	N/A	T1P55
PEND ORD DIS	(2013)	N/A	N/A	T1P55
PEND IPOD	(2014)	N/A	N/A	T1P55
INACTIVE VEST	(2006,2008)	55	N/A	T1P55

**Minras, Omegas and Retirement Assumptions**

**PFRS – Tier 2**

Plan or Group		Minra	Assumed Omega	Retirement Assumption
371-a	(4020,4021)	MAX (55,5 YRS)	70	T2P55
375-c & e	(4025,4026)	MAX (55,5 YRS)	70	T2P55
375-g	(4030,4031)	MAX (55,5 YRS)	70	T2P55
375-h & i	(4034,4035)	MAX (55,5 YRS)	70	T2P55
375-j	(4036,4038)	MAX (55,5 YRS)	70	T2P55
384	(4048,4049)	MIN (60,25 YRS)	70	YR25W70
384(f)	(4089,4090)	MIN (60,25 YRS)	62	YR25W70
384-d	(4060,4037,4061)	MIN (62,20 YRS)	62	YR20W62
384-e	(4091,4092)	MIN (62,20 YRS)	62	OR20E62
381-b	(4080,4081)	MIN (20 YRS W)	57	OR20S57
383-a	(4085,4086)	MIN (60,25 YRS)	70	YR25W70
DEATH BENEFIT 0	(4115)	MIN (62,20 YRS)	62	OR20E62
DEATH BENEFIT 1	(4105)	MAX (55,5 YRS)	70	T2P55
DEATH BENEFIT 2	(4110)	MAX (55,5 YRS)	70	T2P55
SICK LEAVE	(4120,4121)	MIN (20 YRS W)	57	OR20S57
PEND SERV 384-d	(4004,4011)	N/A	N/A	T2P55
PEND SERV 384-e	(4003)	N/A	N/A	T2P55
PEND SERV 381-b	(4010)	N/A	N/A	T2P55
PEND ACC DIS	(4012)	N/A	N/A	T2P55
PEND ORD DIS	(4013)	N/A	N/A	T2P55
PEND IPOD	(4014)	N/A	N/A	T2P55
INACTIVE VEST	(4006,4008)	MAX (55,5 YRS)	N/A	T2P55

*1/yr FAS*



**PFRS**

**Service Retirement Benefit Formulas (con't)**

**384-d**

- Tier 1: .5 \* FAS if Yrs ≥ 20  
1/40 \* FAS \* Yrs at age 62 if Yrs < 20  
Assume reversion to 375-i if age ≥ 55 and benefit is greater.
- Tier 2: Same as Tier 1 except 375-i reversion includes the 30 year limit and age reductions if age < 62.

**384-e**

- Tier 1: [.5 + 1/60 \* (Yrs - 20)] \* FAS, Maximum of .75 \* FAS Yrs ≥ 20  
1/40 \* FAS \* Yrs AT age 62 if Yrs < 20
- Tier 2: Same as Tier 1 except that the maximum is 2/3 \* FAS (30 year limit).

**381-b**

- Tier 1: [.5 + 1/60 \* (Yrs - 20)] \* FAS, Maximum of .75 \* FAS if Yrs ≥ 20  
1/40 \* FAS \* Yrs at age 57 if Yrs < 20
- Tier 2: Same as Tier 1 except that the maximum is 2/3 \* FAS (30 year limit).

**Vested Benefit Formulas**

**371-a and**

**All 375 plans.....**Service Retirement Benefit if Yrs ≥

- All other plans . . .** Tier 1: 1/60 \* FAS \* Yrs if Yrs ≥ 5
- Tier 2: 1/60 \* FAS \* Yrs, maximum of .5 \* FAS, if Yrs ≥ 5

Benefit is payable at age 55.

**Disability Benefit Formulas**

**Ordinary**

**Disability .....**

Tier 1 plans except 381-b requires 10 years of service

Maximum of: { 1/60 \* FAS \* Yrs  
Minimum of: { 1/3 \* FAS  
1/60 \* FAS \* Projected Service to age 60

Tier 2 plans except 381-b Same as above except maximum of .5 \* FAS for 371-a & 375-c & e, Maximum of (1/2 + 5/60) \* FAS for 375-g, and maximum of .6 \* FAS for 375-h & i

Tier 1 & 2 381-b .5 \* FAS requires 5 years of service

**PFRS  
Disability Benefit Formulas (con't)**

**Accidental** ..... Reduce benefits by .05 \* FAS for assumed workers compensation offset where appropriate.

Tier 1:  
    .75 \* FAS - .05 \* FAS = .70 \* FAS

Tier 2:  
    Same as Tier 1 except:  
                    383-a                      (1/2 + 5/60 - .05) \* FAS

**In 1985 the IPOD disability benefit was created.**

**IPOD** ..... (In performance of duty) .5 \* FAS

**Death Benefit Formulas**

**Accidental**

**Death:** Escalated Salary - .18 \* FAS - .06 \* SAL

**Ordinary Death**

Tier 1

**if ineligible to retire,**

**371a** ..... 1/12 \* Salary (SAL) for each of the first 12 years of service +  
                    1/24 \* SAL for each of the first 24 years above 12, but =36,  
                    i.e., Maximum of 2 \* SAL

**375 c, e, g, i, & j** ..... 1/12 \* SAL \* Yrs up to 36  
**375 h, non-security**  
**384, 384(f), 384-d, 384-e**

**375-h Security,**  
**381-b & 383--a**.....3 \* SAL

..... **If eligible to retire, then the greater of the above and the Service Retirement reserve using a 4% annuity, except 383A with entry after 1970**

**PFRS**  
**Death Benefit Formulas** (con't)

**Tier 2**

**Death Benefit 0**

..... 3 \* SAL. If eligible to retire, than the greater of 3 \* SAL and the service retirement reserve using 4% annuity value if entry was before 1989, otherwise a 7% annuity value.

**Death Benefit 2**

*Active Death*

Benefit..... SAL \* Yrs (limited to 3) \* 3% Death Reductions  
. 3% Death Reductions:

**Post-Retirement**

**Death Benefit.. (Service, Ordinary Disability, and Accidental Disability)**

**For those who have Death Benefit 1 or 2**

If death occurs within the first year after retirement---benefit is .50 of the active death benefit at retirement.

If death occurs in the second year after retirement---benefit is .25 of the active death benefit at retirement.

If death occurs after the second year in retirement--- benefit is .1 of the active death benefit at age 60 or retirement, if earlier and if Entry Age (EA) < 60.

If EA =60, the death benefit after the second year of retirement is 0.

**Active Ordinary Death Benefit.**

..... First \$50,000 is paid from group term life insurance, remainder is included in the valuation.

..... If a member has 10 years of service, terminates and dies prior to applying for a vested benefit, one-half of the ordinary death benefit is payable.



## **Other Benefit Formulas**

### **Sick Leave**

..... Assumes 4 days are credited for each year of service, maximum of 165 days.

..... Tier 1:  $1/60 * \frac{\text{Minimum (165, 4 * Yrs)}}{260} * \text{FAS if } 20 < \text{Yrs} < 35$

..... Tier 2:  $1/60 * \frac{\text{Minimum (164, 4 * Yrs)}}{260} * \text{FAS if } 20 < \text{Yrs} < 30$

### **1 Year FAS.**

..... Applied to the following 5 groups: (1) Regular---assume 375-i benefits; (2) 384; (3) 384(f); (4) 384-d; and (5) 384-e; and (6) 384-ex.

Calculate service benefits, vesting, ordinary disability, IPOD, accidental disability and ordinary death benefits as indicated previously (except no reduction for workers' compensation in accidental disability).

Multiply all results by 0.07 to calculate the additional liability due to the 1 year FAS option.

### **Pending Retirements**

..... If accidental, ordinary or in-performance-of-duty disability---assume the member is in 384-d .. (with 1 year FAS, if Tier 1).

.. Tier 1 384-d & e service retirements assume a 1 year FAS.

.. Use 384-d, 384-e and 381-b service formulae for their respective groups.

### **Inactive Members**

..... Tier 1 & 2 -  $1/60 * \text{Yrs} * \text{FAS}$   
Benefit begins at 55.

### **COLA**

..... Eligibility:

Pensioners age 62 and retired 5 years

Pensioners age 55 and retired 10 years

Disability Pensioners retired 5 years

Accidental Death beneficiaries receiving a benefit for 5 years

..... Benefit:

50% of the rate of inflation times the first \$18,000 of the single-life allowance.

Maximum 3%. Minimum 1%