# NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

Actuarial Valuation Report as of July 1, 2004

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October 11, 2004

Board Members North Dakota Public Employees Retirement System Bismarck, North Dakota

Members of the Board:

It is a pleasure to submit this report that presents the results of our actuarial valuation of the North Dakota Public Employees Retirement System as of July 1, 2004.

The report's actuarial content was prepared in accordance with generally accepted actuarial principles under our direction. The valuation was:

- Prepared by qualified actuaries who are members of the American Academy of Actuaries and who have experience in performing valuations for public retirement systems;
- Prepared in accordance with standards of practice prescribed by the Actuarial Standards Board; and
- Composed of actuarial calculations that were performed by qualified actuaries in accordance with accepted procedures as defined by the Actuarial Standards Board, based on the current provisions of the Retirement System and on actuarial assumptions and methods that are internally consistent and reasonably based on the actual experience of the System.

We wish to thank the Retirement Office staff for their cooperation in providing us with the participant census data and financial information necessary to prepare the valuation.

Benefits, Compensation and HR Consulting Atlanta BOSTON CHICAGO CLEVELAND DENVER HARTFORD HOUSTON LOS ANGELES MINNEAPOLIS NEW ORLEANS NEW YORK PHILADELPHIA PHOENIX SAN FRANCISCO SEATTLE TORONTO WASHINGTON, DC

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North Dakota Public Employees Retirement System October 11, 2004 Page 2

We look forward to meeting with you to review this report and to answering any questions you may have.

Sincerely,

Lislu Thomp

Leslie L. Thompson, FSA, MAAA, EA Senior Vice President and Actuary

Marty Mon

Wally Malles, ASA, MAAA, EA Assistant Actuary

cc: Sparb Collins

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# I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2004. The employer contribution requirements presented in Section VI of the report are based on:

- 1. The present provisions of the North Dakota Public Employees Retirement System;
- 2. The characteristics of covered active members, inactive non-retired members, pensioners and beneficiaries as of July 1, 2004;
- 3. The assets of the System as of June 30, 2004; and
- 4. Actuarial assumptions regarding investment earnings, salary increases, and rates of retirement, disability, death, etc.

The purpose of the actuarial valuation is to determine the contribution sufficient to meet the long-term obligations to the members covered by the North Dakota Public Employees Retirement System in accordance with the benefit provisions of the System.

If each of the actuarial assumptions is exactly fulfilled, the true actuarial cost of the System will equal the cost projected by the actuarial calculations. However, this result is never achieved because of the length of time over which projections are made and because of the great number of variables that can affect the emerging costs. The cost, expressed as a percentage of payroll, will increase if the System experiences net actuarial losses and will decrease if the System experiences net actuarial gains.

# II. HIGHLIGHTS

- The present rate of contributions is not sufficient to meet the actuarially determined requirement for 2004-2005, based upon the actuarial assumptions and financing objectives approved by the Board.
- > The PERS Board should continue to review these results and projected future performance to determine appropriate measures to mitigate the difference between the actuarial and statutory contribution rates.
- > There were two new groups included in PERS during the 2003-2004 year. They are Law Enforcement with prior Main service and Law Enforcement without prior Main service. This actuarial valuation reflects an asset transfer from the Main System to the Law Enforcement with prior Main service of \$2,176,156 as of June 30, 2004. This transfer amount is equal to the Main System actuarial accrued liability for the 40 participants who transferred from Main to Law Enforcement with prior Main service.
- > The employer actuarial contribution requirements for 2004-2005 are as follows:

	Amount	Percentage of Payroll	Statutory/ Approved Rate
Main System	\$31,157,298	6.30%	4.12%
Judges	549,288	12.44	14.52
National Guard	18,502	3.25	8.33
Law Enforcement with prior Main service	91,822	7.88	8.31
Law Enforcement without prior Main service	27,667	8.35	6.43

A comparison of this year's actuarial contribution rates to last year's rates as a percent of payroll are as follows:

	2004-2005	2003-2004
Main System	6.30%	5.51%
Judges	12.44	12.10
National Guard	3.25	2.76
Law Enforcement with prior Main service	7.88	N/A
Law Enforcement without prior Main service	8.35	N/A

The Main System statutory rate of 4.12% of payroll is less than the actuarially determined rate of 6.30% of payroll by 2.18% of payroll. Last year, the Main System statutory rate was less than the actuarially determined rate by 1.39% of payroll. The contribution rate deficit this year is primarily attributable to the accumulated investment losses in 2001 and 2002.

- The return on the market value of assets for 2003-2004 for the PERS Fund was 16.64%, and was 5.20% for the preceding year.
- > The return on the actuarial value of assets for 2003-2004 for the PERS Fund was 3.16% compared to the investment return assumption of 8.00%. As a result, the PERS Fund experienced an investment loss on an actuarial value basis of approximately \$55 million.
- The ratio of the actuarial value of assets to the market value of assets for the PERS Fund is 94.4%. Last year, this ratio was 106.7%.
- > A comparison of this year's funded ratio for PERS to the prior year is as follows:

	July 1, 2004	July 1, 2003
Actuarial Value of Assets	\$1,196,533,100	\$1,166,452,100
Actuarial Accrued Liability	1,272,857,600	1,188,830,500
Funded Ratio	94.0%	98.1%

> Table 6 details actuarial gains and losses in the Main System for many of the measured demographic assumptions. The gain/(loss) by source is measured each year, and a detailed analysis of the System's demographic assumptions is reviewed every fourth or fifth year by the completion of an experience study. The next experience study for the System will be completed in 2005.

> There were no changes in the plan provisions, actuarial assumptions or methods since the preceding valuation.

# **III. MEMBER CHARACTERISTICS**

Detailed information for all non-retired members as of July 1, 2004 was provided by the Retirement Office. The data included name, sex, date of birth, months of service, members' accumulated account balances, and annual salary rate.

# Active Members

The age, service, compensation and account balance data for active members as of July 1, 2004 is summarized below:

	Main _System_	Judges	National Guard	Law Enforcement with prior <u>Main service</u>	Law Enforcement without prior <u>Main service</u>	Total
Number of active members	17,522	46	17	39	12	17,636
Average age	46.4	55.3	38.1	42.9	36.4	46.4
Average years of service	10.4	11.4	8.1	12.8	0.4	10.4
Total annual salary	\$494,519,798	\$4,415,921	\$569,829	\$1,165,355	\$331,277	\$501,002,180
Average annual salary	\$28,223	\$95,998	\$33,519	\$29,881	\$27,606	\$28,408
Total accumulated member contribution account balances	\$336,941,578	\$2,796,120	\$308,172	\$1,109,191	\$3,970	\$341,159,031

For the Main System, the number of active members represents an increase of 2.5% over the 17,101 active members last year. Among the members continuing in active service since the prior valuation, and have two or more years of full-time service, salaries increased by an average of 3.2%. Total payroll increased 4.2%, which was less than assumed.

Distributions of the active members by sex, age, and service are presented in Tables 8-A, 8-B and 8-C of the Appendix. Tables 9-A, 9-B and 9-C present a distribution of these same members by sex, age, and actual salary. The table on the following page shows a breakdown of the active members who are currently eligible for benefits, as well as those who have not yet met the vesting requirements.

There are 26 members originally from the Main System that continue to be active members in the Judges System; one member from the Judges System is active in the Main System; 15 members originally from the Main System are active members in the Highway Patrol System; four members from the Highway Patrol System continue to be active members in the Main System. Liabilities for these members are carried in each system based on their service in that system.

Active Members Eligible for:	Main System	Judges	National Guard	Law Enforcement with prior <u>Main service</u>	Law Enforcement without prior <u>Main service</u>	Total
Retirement:						
Normal	442	4	3	5	0	454
Rule of 85	532	2	N/A	0	0	534
Early Retirement	<u>2,511</u>	<u>   17</u>	_1	8	0	2,537
Total Retirement	3,485	23	4	13	0	3,525
Deferred Retirement	<u>9,840</u>	_16	5	<u>    16</u>	0	<u>9,877</u>
Total vested	13,325	39	9	29	0	13,402
Nonvested	<u>4,197</u>	<u> </u>	8	_10	_12	<u>4,234</u>
Total	17,522	46	17	39	12	17,636

The following table shows the number of active participants eligible for retirement:

# Inactive Members

There were 986 inactive members (including one from Judges, two from National Guard and one from Law Enforcement with prior Main service) as of July 1, 2004 with vested rights to deferred retirement benefits. The average deferred monthly benefit for this group was \$404. There were also 63 members on leave of absence from the Main System. For these groups, a liability is carried for their deferred retirement benefits.

## IV. BENEFIT EXPERIENCE

# New Awards

During the fiscal year ended in June 2004, 339 pensions became effective. The average monthly benefit for these pensioners was \$995 and their average age at retirement was 61.8. Last year, the average benefit among new pensioners was \$963. The new pensioners are presented in Tables 10-A, 10-B, 10-C, 11-A, 11-B and 11-C in Appendix B by sex, type of pension, monthly benefit and age on retirement date.

A breakdown of the new pension awards by type compared to last year is as follows:

	<u>July 1, 2004</u>	<u>July 1, 2003</u>
Normal	110	114
Rule of 85	122	145
Early	82	106
Disability	_25	34
Total	339	399

#### **Pensioners**

Since benefits became payable under the current retirement program, a total of 6,747 retirement pensions have been awarded, of which 5,080 remained on the June 2004 rolls (including 14 retired Judges and three retired members of the National Guard). In addition, 49 pensions were in suspended status as of June 30, 2004. Distributions of the pensioners are presented in Tables 12-A, 12-B, 12-C, 13-A, 13-B and 13-C in Appendix B by sex, type of pension, monthly benefit amount and current age.

For the pensions in force on July 1, 2004, the average monthly benefit was \$754, an increase from \$737 a year earlier. The average age of these pensioners on the valuation date was 71.8 years.

# **Beneficiaries**

As of July 1, 2004, monthly benefit payments were being made to 554 beneficiaries, including six beneficiaries of Judges. The monthly payments to beneficiaries in payment status total \$273,811.

#### **Prior Service Pensioners**

As of July 1, 2004, there were 74 pensioners receiving monthly benefits of \$3,798 under the Special Prior Service Pension provisions of the System. The current average age of Prior Service pensioners was 93.2 years, and the average monthly benefit was \$51. Because of the relatively high average age and low benefits, the liability for the Special Prior Service Pensioners represented only about 0.01% of the total actuarial accrued liability for the System. Tables 14-A, 14-B, 14-C, 15-A, 15-B, and 15-C in Appendix B provide a breakdown of these pensioners by sex, type of pension, monthly benefit amount, and current age.

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# V. ASSETS

# Market Value of Assets

As shown in the draft financial statements as of June 30, 2004, the combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen's Retirement System (HPRS) was \$1,309,271,534 compared to \$1,129,905,422 a year earlier. This year's combined market value represents an increase of 15.87% over the market value one year earlier.

Based on schedules provided by the Retirement Office, the breakdown of the market value of net assets allocated to North Dakota PERS follows:

	<u>July 1, 2004</u>	July 1, 2003
Main System	\$1,241,258,383	\$1,073,006,780
Judges	21,987,431	18,594,535
National Guard	1,465,277	1,237,406
Law Enforcement with prior Main service	2,239,134	N/A
Law Enforcement without prior Main service	12,058	<u>N/A</u>
Total	\$1,266,962,283	\$1,092,838,721

The Main System market value of assets as of July 1, 2004 is decreased by \$2,176,156 for the transfers to the Law Enforcement with prior Main service. The market value of assets for the Law Enforcement with prior Main Service is increased by the same transfer amount.

The rate of return on the market value basis for the PERS Fund was 16.64% for the year ended June 30, 2004.

# Actuarial Value of Assets

The actuarial value of assets is determined as follows:

Market appreciation and depreciation are spread over five years beginning with the year of occurrence. Interest and dividends are recognized immediately. This procedure results in recognition of all changes in market value over five years.

The above procedure is applied to the combined assets of PERS and HPRS Retirement Income Funds to determine the combined actuarial value of the Systems. The combined actuarial value was \$1,236,490,403 as of June 30, 2004. The determination of the combined actuarial asset value is shown in Table 1. This table shows that there is approximately \$73 million of appreciation that will be recognized in future years.

Table 2 summarizes the combined investment results over the previous ten-year period. Over this period, the earnings of \$757,385,300 on an actuarial value basis represented an average annual return of 9.39%. For the 2003-2004 year, the actuarial rate of return on the combined assets was 3.16%.

The total actuarial value of assets is allocated to PERS (Main System, Judges, National Guard and Law Enforcement) and HPRS in proportion to the reported market value of assets. This allocation is illustrated in Table 3 and summarized below for the PERS Fund alone.

	July 1, 2004	<u>July 1, 2003</u>
Main System	\$1,172,258,036	\$1,145,284,302
Judges	20,765,171	19,847,059
National Guard	1,383,824	1,320,757
Law Enforcement with prior Main service	2,114,663	N/A
Law Enforcement without prior Main service	11,388	<u>N/A</u>
Total	\$1,196,533,082	\$1,166,452,118

Chart 1 on page 13 is a graph showing the historical asset values for the PERS Fund on both an actuarial and market value basis. This graph illustrates that the market value of assets is now greater than the actuarial value.

Income and disbursements for 2004 and 2003 on an actuarial value basis are summarized in Table 4 for the PERS Fund. The progress of the PERS Fund for the last ten years is provided in Table 5. It shows that assets have increased consistently from year to year, although the amount of the increase has varied with fluctuations in investment income. Benefit payments have also increased consistently over the period, with the exception of one year.

A picture of the financial development of the PERS Fund over the last ten years is provided in Chart 2 on page 16. It shows that benefit payments and expenses continue to exceed contributions. However, over the long term, the excess of contributions over benefit payments and expenses, along with net investment income, served to increase the assets of the System.

Investment results on the actuarial basis are used to determine whether investment experience is meeting the System's actuarially assumed return. They do not, however, necessarily indicate the relative success of the System's investment program. Comparisons of performance with other funds, investment institutions, and market indices are generally based on rates of return that recognize market changes in full.

# Investment Return

Year Ending June 30	Market <u>Value</u>	Actuarial <u>Value</u>
1995	14.24%	8.98%
1996	15.78	11.65
1997	19.90	13.14
1998	15.65	14.02
1999	10.88	14.73
2000	9.43	13.71
2001	(4.47)	9.36
2002	(6.94)	3.91
2003	5.19	2.18
2004	16.65	3.16

The investment returns for the last ten years for the combined fund are as follows:

The above values demonstrate the fact that the volatility of market value returns is reduced by using an actuarial value of assets. Chart 3 on page 17 illustrates the smoothing effect that results from using an actuarial value of assets. By using an actuarial value that reduces the year-to-year fluctuations in investment return, year-to-year fluctuations in contribution requirements are reduced.

Investment return rates on the market value basis include all capital appreciation and depreciation. The returns on the actuarial value reflect only a portion of the capital appreciation and depreciation based on the adopted valuation method.

# Determination of Actuarial Value of Assets (for PERS and HPRS) as of June 30, 2004 and 2003

				opreciation	
		June	<u>30, 2004</u>	Jun	e 30, 2003
·	Total Appreciation	Percent	Amount	Percent	Amount
Year Ending	(Depreciation)	Deferred	Deferred	Deferred	Deferred
June 30, 2000	\$70,477,207	0%	\$0	20%	\$14,095,441
June 30, 2001	(96,066,919)	20%	(19,213,384)	40%	(38,426,768)
June 30, 2002	(115,940,982)	40%	(46,376,393)	60%	(69,564,589)
June 30, 2003	22,232,141	60%	13,339,285	80%	17,785,713
June 30, 2004	156,289,529	80%	125,031,623	N/A	0
(a) Total Deferred	as of Valuation Date		\$72,781,131		\$(76,110,203)
(b) Total Apprecia last five Plan Y	tion (Depreciation) for ears		36,990,976		(38,966,218)
(c) Write-Up/(Dov year - equals 20	vn) Amount for the 0% of (b)		7,398,195		(7,793,244)
			July 1, 2004		<u>July 1, 2003</u>
Market Value of Asse	ts		\$1,309,271,534		\$1,129,905,422
Less: Deferred Appreciation (Depreciation)			72,781,131		(76,110,203)
Actuarial Value of Assets			\$1,236,490,403		\$1,206,015,625
Actuarial Value as a P Value	ercent of Market		94.44%		106.74%

Year Ended	Net Interes Dividend Ir			Other Income**		
June 30	Amount	Yield	Amount	Yield	Amount	Yield
1995	\$21,096,800	4.03%	\$25,927,800	4.95%	\$47,024,600	8.98%
1996	24,776,500	4.32	42,002,100	7.33	66,778,600	11.65
1997	23,919,600	3.73	60,428,700	9.41	84,348,300	13.14
1998	29,988,300	4.13	71,787,700	9.89	101,776,000	14.02
1999	31,722,100	3.84	89,864,100	10.89	121,586,200	14.73
2000	36,367,600	3.88	92,244,700	9.83	128,612,300	13.71
2001	41,086,800	3.89	57,734,900	5.47	98,821,700	9.36
2002	35,077,400	3.06	9,694,500	0.85	44,771,900	3.91
2003	33,595,900	2.84	(7,793,200)	(0.66)	25,802,700	2.18
2004	30,464,800	2.54	7,398,200	0.62	37,863,000	3.16
Total for Last Ten Years	\$\$308,095,800		\$449,289,500		\$757,385,300	
Total for Last Ten Years Average Yield for last T			\$449,289,500		\$757,385,30 9.39%	)0

Summary of Combined Investment Results for PERS and HPRS on Actuarial Value of Assets

\* Net of investment expenses.
\*\* Includes write-up (down).
\*\*\* Each year's yield weighted by average fund value in that year.

Allocation of Combined (PERS and HPRS) Actuarial Value of Assets

	July 1	July 1, 2004	July 1	July 1, 2003
	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Market Value</u>	Actuarial Value
PERS Main System*	\$1,241,258,383	\$1,172,258,036	\$1,073,006,780	\$1,145,284,302
PERS Judges	21,987,431	20,765,171	18,594,535	19,847,059
PERS National Guard	1,465,277	1,383,824	1,237,406	1,320,757
PERS Law Enforcement with prior Main service**	2,239,134	2,114,663	N/A	N/A
PERS Law Enforcement without prior Main service	12.058	11.388	N/A	N/A
PERS Combined	\$1,266,962,283	\$1,196,533,082	\$1,092,838,721	\$1,166,452,118
Highway Patrol	42,309,251	39,957,321	37,066,701	39,563,507
Total	\$1,309,271,534	\$1,236,490,403	\$1,129,905,422	\$1,206,015,625

Note: Allocation of the actuarial value of assets is in proportion to the market value of assets.

\* PERS Main System market value of assets as of July 1, 2004 is decreased by \$2,176,156 for the transfers to the Law Enforcement with prior Main service. \*\* PERS Law Enforcement with prior Main service market value of assets as of July 1, 2004 is increased by \$2,176,156 for the transfers to the Law Enforcement with prior Main service.

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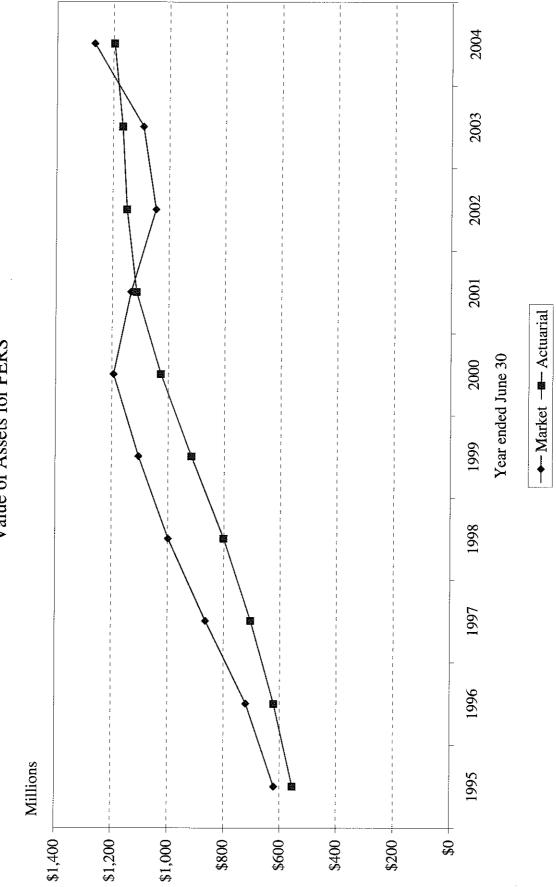


Chart 1 Value of Assets for PERS

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# Summary Statement of Income and Disbursements for PERS for the Years Ended June 30, 2004 and 2003 (Actuarial Value Basis)

	June 30, 2004	June 30, 2003
Contribution Income:		
Employer Contributions	\$19,732,842	\$19,212,733
Member Contributions	18,754,814	18,265,346
Service Credit Repurchases	3,397,231	_1,493,418
Total Contribution Income	\$41,884,887	\$38,971,497
Less: Administrative Expenses	(995,879)	(1,068,803)
Net Contribution Income	<u>\$40,889,008</u>	<u>\$37,902,694</u>
Teacher's Retirement Plan Transfer	\$3,789,350	\$0
Investment Income:		
Interest and Dividends	\$34,066,356	\$36,915,639
Miscellaneous Income	6,299	9,184
Less: Investment Expenses	(4,603,885)	(4,442,094)
Net Interest and Dividends	\$29,468,770	\$32,482,729
Write-up of Assets	7,126,192	(7,472,945)
Net Investment Income	<u>\$36,594,962</u>	<u>\$25,009,784</u>
Total Income Available for Benefit Payments and Reserves	<u>\$81,273,320</u>	<u>\$62,912,478</u>
Benefit Payments:		
Pension Benefits	\$(47,515,319)	\$(43,733,098)
Transfers to Other Plans	(17,587)	(129,235)
Refunds	(3,659,450)	(2,598,856)
Total Benefit Payments	<u>\$(51,192,356)</u>	<u>\$(46,461,189)</u>
Addition to Reserve for Future Benefit Payments	\$30,080,964	\$16,451,289
Actuarial Value of Assets, Start of Year	<u>1,166,452,118</u>	1,150,000,829
Actuarial Value of Assets, End of Year	<u>\$1,196,533,082</u>	<u>\$1,166,452,118</u>

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# Progress of the PERS Fund through June 30, 2004 (Actuarial Value Basis)

Year Ended June 30	Employer Contributions	Member Contributions*	Administrative Expenses	Net Investment Income	Benefit Payments	Fund at End Of Year
1994	1				1	\$505,776,770
1995	\$13,257,600	\$13,164,344	\$528,430	\$45,345,492	\$22,372,635	554,643,141
1996	13,815,784	13,831,828	555,421	64,398,234	24,470,794	621,662,772
1997	14,435,989	14,320,237	565,778	81,409,263	26,791,639	704,470,844
1998	15,078,427	15,061,818	605,241	98,273,502	30,988,902	801,290,448
1999	15,873,917	16,152,785	718,396	117,425,238	33,070,715	916,953,277
2000	16,521,248	16,618,771	800,529	124,281,079	46,572,021	1,027,001,825
2001	17,101,628	17,353,268	894,868	95,499,825	40,727,282	1,115,334,396
2002	18,244,655	18,439,125	983,258	43,304,595	44,338,684	1,150,000,829
2003	19,212,733	19,758,764	1,068,803	25,009,784	46,461,189	1,166,452,118
2004	23,522,192	22,152,045	995,879	36,594,962	51,192,356	1,196,533,082
Total for Last Ten Years	\$167,064,173	\$166,852,985	\$7,716,603	\$731,541,974	\$366,986,217	

\* Includes repurchases of service credit.

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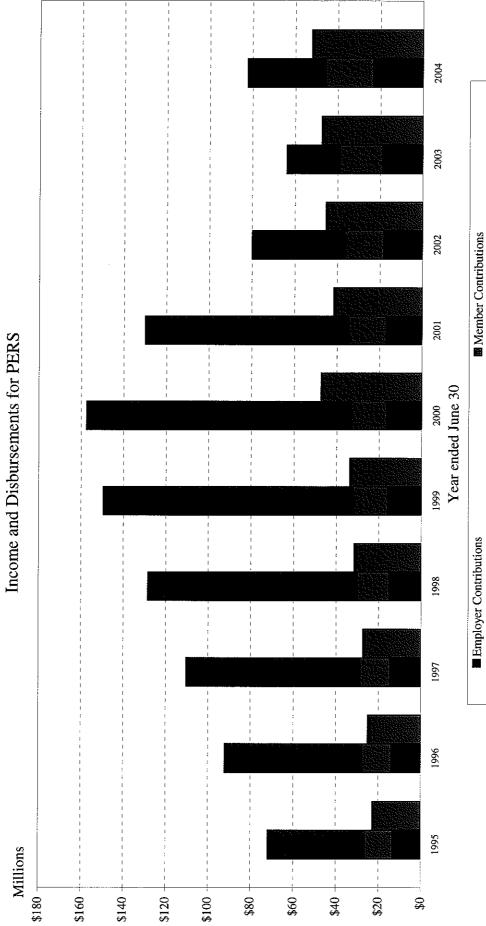


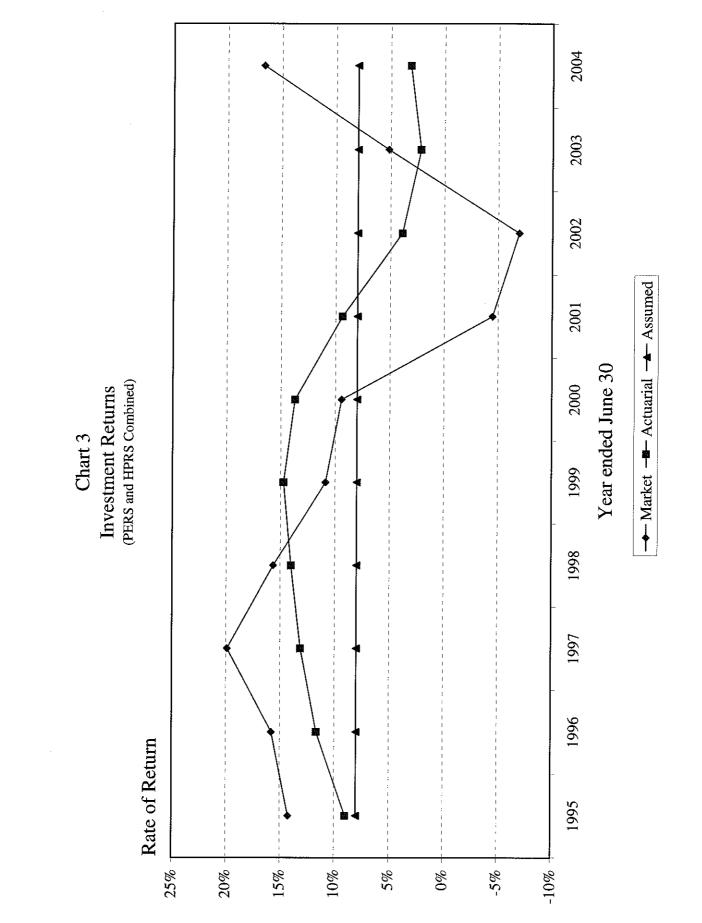
Chart 2 The and Disbursements for D

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Benefit Payments & Administrative Expenses

Net Investment Income



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# VI. RESULTS OF ACTUARIAL VALUATION

The contribution requirement consists of the normal cost, administrative expense allowance, plus the cost of amortizing the unfunded actuarial accrued liability over a scheduled period of years. The Board has adopted an open amortization schedule of 20 years with increasing payments. The calculated employer contribution requirements on this basis for fiscal year 2004-2005 are shown below as a dollar amount and as a percentage of the covered payroll of contributing employees.

#### Main System

The components of the actuarial contribution requirements are shown below:

	Amount for 2004 - 2005	Percentage of Payroll
Total normal cost	\$44,743,189	9.05%
Less: Member contributions	<u>(19,780,792)</u>	(4.00)
Net employer normal cost	\$24,962,397	5.05%
Administrative expense allowance	710,000	0.14
Amortization payment (credit)	5,484,901	<u>1.11</u>
Total employer contribution requirement	\$31,157,298	6.30%

Covered payroll is \$494,519,798.

The statutory contribution rate is 4.12% of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by 2.18% of payroll.

The total employer actuarial contribution requirement was 5.51% of payroll last year. Since then, actual experience of the System during 2003-2004 has changed the actuarial contribution requirement. Table 6 presents a detailed explanation of the factors that changed the contribution requirement from July 1, 2003 to July 1, 2004.

# Judges

The components of the actuarial contribution requirement are shown below:

	Amount for <u>2004 - 2005</u>	Percentage of Payroll
Total normal cost	\$935,392	21.18%
Less: Member contributions	(220,796)	(5.00)
Net employer normal cost	\$714,596	16.18%
Administrative expense allowance	5,000	0.11
Amortization payment (credit)	<u>(170,308)</u>	(3.85)
Total employer contribution requirement	\$549,288	12.44%

Covered payroll is \$4,415,921.

The statutory contribution rate is 14.52% of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by 2.08% of payroll.

The net employer normal cost plus the administrative expense allowance is 16.29% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 12.44% of payroll reflects an amortization credit. By this measure, statutory contributions are less than the ultimate plan cost rate of 16.29% of payroll by 1.77% of payroll.

A reconciliation of the change in the cost rate since the previous valuation follows:

	Percentage of Payroll
Employer cost rate as of July 1, 2003	12.10%
Plan experience during the year	0.20
Effect of maintaining 20-year amortization schedule	0.14
Employer cost rate as of July 1, 2004	12.44%

# National Guard

The components of the actuarial contribution requirement are shown below:

	Amount for 2004 - 2005	Percentage of Payroll
Total normal cost	\$56,058	9.84%
Less: Member contributions	(22,793)	(4.00)
Net employer normal cost	\$33,265	5.84%
Administrative expense allowance	1,533	0.27
Amortization payment (credit)	(16,296)	(2.86)
Total employer contribution requirement	\$18,502	3.25%

Covered payroll is \$569,829.

The statutory contribution rate is 8.33% of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by 5.08% of payroll.

The net employer normal cost plus the administrative expense allowance is 6.11% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 3.25% of payroll reflects an amortization credit. By this measure, statutory contributions are greater than the ultimate plan cost rate of 6.11% of payroll by 2.22% of payroll.

A reconciliation of the change in the cost rate since the previous valuation follows:

	Percentage of Payroll
Employer cost rate as of July 1, 2003	2.76%
Plan experience during the year	0.38
Effect of maintaining 20-year amortization schedule	0.11
Employer cost rate as of July 1, 2004	3.25%

# Law Enforcement with prior Main service

The components of the actuarial contribution requirement are shown below:

	Amount for <u>2004 - 2005</u>	Percentage of Payroll
Total normal cost	\$113,964	9.78%
Less: Member contributions	(46,614)	(4.00)
Net employer normal cost	\$67,350	5.78%
Administrative expense allowance	2,667	0.23
Amortization payment (credit)	_21,805	1.87
Total employer contribution requirement	\$91,822	7.88%

Covered payroll is \$1,165,355.

The statutory contribution rate is 8.31% of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by 0.43% of payroll.

Since the Law Enforcement with prior Main service is a new group, a reconciliation of the change since the previous valuation is not shown.

# Law Enforcement without prior Main service

The components of the actuarial contribution requirement are shown below:

	Amount for <u>2004 - 2005</u>	Percentage of Payroll
Total normal cost	\$40,185	12.13%
Less: Member contributions	(13,251)	(4.00)
Net employer normal cost	\$26,934	8.13%
Administrative expense allowance	800	0.24
Amortization payment (credit)	(67)	(0.02)
Total employer contribution requirement	\$27,667	8.35%

Covered payroll is \$331,277.

The statutory contribution rate is 6.43% of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by 1.92% of payroll.

Since the Law Enforcement without prior Main service is a new group, a reconciliation of the change since the previous valuation is not shown.

# Main System, Judges, National Guard and Law Enforcement Combined

The components of the actuarial contribution requirement are shown below.

	Amount for <u>2004 - 2005</u>	Percentage of Payroll
Total normal cost	\$45,888,788	9.16%
Less: Member contributions	(20,084,246)	(4.01)
Net employer normal cost	\$25,804,542	5.15%
Administrative expense allowance	720,000	0.15
Amortization payment (credit)	<u>5,320,035</u>	1.06
Total employer contribution requirement	\$31,844,577	6.36%

Covered payroll is \$501,002,180.

# Main System Explanation of Change in Employer Cost Rate

	Percent of Payroll
Employer Cost Rate as of July 1, 2003	5.51%
Retired Life Mortality	0.01%
The release of liability due to deaths among retirees and beneficiaries was nearly equal to that expected.	
Active Life Mortality	0.03%
The release of liability due to deaths among active members was less than expected, increasing the employer cost rate.	
Disability Incidence	0.00%
The net change in liability due to disability retirements was nearly equal to that expected.	
Withdrawal	0.03%
The release of liability due to withdrawals prior to retirement was less than expected, increasing the employer cost rate.	
Retirement	0.10%
The actual liability due to non-disabled retirements was higher than expected, increasing the employer cost rate.	
Investments	0.78%
On an actuarial value basis, the rate of return on assets was less than the assumed rate of return, increasing the employer cost rate.	
Salary Scale	(0.23)%
Salaries increased less than expected, decreasing the employer cost rate.	· ,
Contributions	0.12%
Actual contributions received by the System were less than the actuarially determined amount, increasing the required contributions in future years.	

# Main System Explanation of Change in Employer Cost Rate (continued)

	of Payroll
Administrative Expenses	0.00%
Actual expenses were nearly equal to that expected.	
New and Reinstated Members	0.12%
The addition of new and reinstated members increases the employer cost rate.	
Part-Time Experience	(0.14)%
Some continuing active members earned less than one year of service during the current year, decreasing the employer cost rate.	•
Change in Size and Composition of Active Membership and Miscellaneous Experience	0.01%
The demographic characteristics of the active membership changed during the year.	
Plan Provision Changes	0.00%
There were no plan provisions changes.	
Assumption Changes	0.00%
There were no assumption changes.	15
Funding Schedule	(0.04)%
The effect of maintaining a 20-year funding schedule results in a small decrease in cost.	
Employer Cost Rate as of July 1, 2004	6.30%

# VII. FUNDING STATUS

The calculation of funded ratios provides one measure of the progress of funding a retirement plan. The funded ratio is the percentage of plan liabilities covered by plan assets. The greater the ratio, the better funded the retirement plan is. This ratio can be calculated using different measures of the retirement plan's liabilities.

#### Funding Basis - Actuarial Accrued Liability

This measure of liabilities is used in calculating pension costs. It uses the Entry Age Normal Actuarial Cost Method that spreads costs as a level percentage of payroll over a member's working career.

For determining plan costs, a smoothed value of assets (called the actuarial value) is used. Hence, the actuarial value of assets was used to calculate the funded ratios.

#### Disclosure Basis

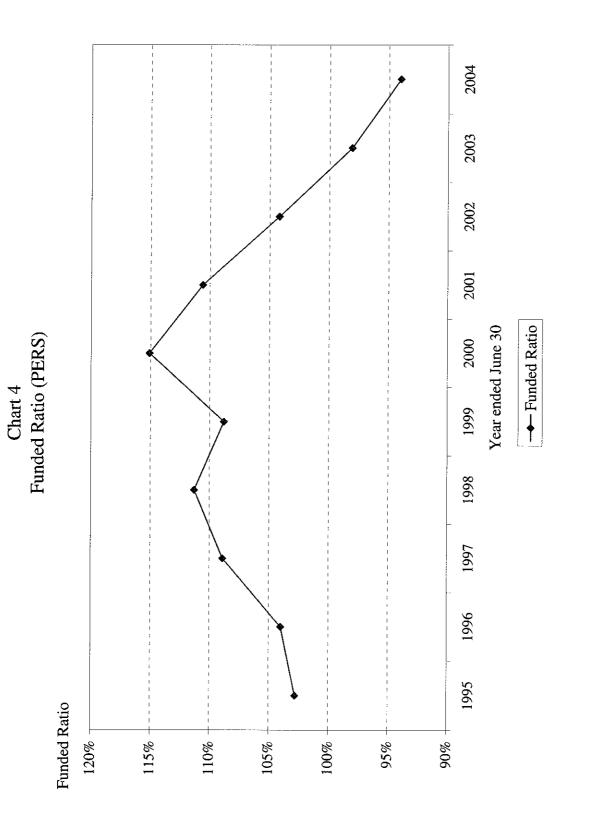
The accounting standard for disclosure of liabilities and funding status of the System is based on GASB Statement No. 25 (Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans). GASB Statement No. 25 allows the System to disclose its liabilities and funding status on the same bases used for funding the System. The actuarial value of assets is used for comparing assets and liabilities.

# Historical Results

The funded ratios (under the GASB Statement No. 25 standard) for the last ten years are developed in Table 7. These ratios are graphed in Chart 4 on page 28. They show that the funded ratio has generally improved during the beginning of this period, but has deteriorated since July 1, 2000.

Funded ratios change over time due to several factors. These factors include the level of contributions, actual experience (including investment returns), plan amendments and changes in assumptions. In particular, we observe that in 1995, 1999 and 2001 benefit improvements were effective, decreasing the funded ratio from what it would have been otherwise. Also, the actuarial assumptions were changed in 1995 and 2000, changing the funded ratio from what it would have been otherwise.

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# VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

The actuarial assumptions and cost methods used in the actuarial valuation as of July 1, 2004 are the same as those used in the previous valuation. A summary of the actuarial assumptions and cost methods follows. Details can be found in Exhibit II of Appendix A.

# Investment Return

The actuarial calculations are based on the assumption that the investment return on the actuarial value of assets of the System will be 8.00% per year, net of investment expenses.

#### Salary Increases

Because the retirement benefits provided by the plan are based on a member's final average salary, increases in salaries affect the employer's contribution requirements. A salary scale is used in an actuarial valuation to project each member's future salary increases.

For the Main System, National Guard and Law Enforcement, the assumed salary increase is 7.00% during each of the first five years of service. After five years of service, salary increases are age-related. Sample age-related annual salary rate increases are as follows:

<u>Age</u>	Increase
25	5.90%
30	5.60
35	5.30
40	5.10
45	4.90
50	4.80
55	4.70
60	4.70

For Judges, the assumed salary increase is 5.50% per year for all years of service.

Actuarial assumptions should be reasonable over the long term and should not be unduly influenced by transitory deviations. Actual salary increases that are greater than assumed produce actuarial losses that, if not offset by actuarial gains from other sources (such as investment gains), result in increasing future employer costs. On the other hand, salary increases that are less than projected produce actuarial gains, which can result in lowering future employer costs.

# Payroll Growth

For the Main System, National Guard and Law Enforcement, the assumed payroll growth rate is 4.50% per annum. For Judges, the assumed payroll growth rate is 4.00% per annum.

#### Mortality Rates

The reserve required to pay a member's retirement benefits depends on the period over which payments will be received. The valuation uses the 1983 Group Annuity Mortality Table for healthy members and the Pension Benefit Guaranty Corporation Disabled Life Mortality Table for Individuals Receiving Social Security Disability Benefits for disabled members. The table below shows sample mortality rates and life expectancies underlying the healthy mortality tables.

		Retired N	Aembers	·
Males		Males	s F	
Age	Deaths per 1,000 Lives	Expected Number of Years of Life Remaining	Deaths per 1,000 Lives	Expected Number of Years of Life Remaining
55	6.1	24.8	2.5	30.3
60	9.2	20.6	4.2	25.7
65	15.6	16.7	7.1	21.3
70	27.5	13.2	12.4	17.2
75	44.6	10.2	24.0	13.4
80	74.1	7.6	42.9	10.2
85	114.8	5.7	69.9	7.6

# Disability Incidence Rates Before Retirement

A percentage of members are assumed to become disabled while in active service. The incidence rates used are based on a study of disability incidence under the Social Security program. To reflect actual experience under the retirement system, 42% of the Social Security disability incidence rates are used for males and 30% are used for females.

#### Withdrawal Rates Before Retirement

The withdrawal rates used in this actuarial valuation reflect the expected percentage of members who will leave service at each age before retirement for reasons other than death or disability.

For the Main System, National Guard and Law Enforcement, special withdrawal rates are applied during the first five years of service to recognize higher turnover for short service members.

	Years of Service				
Age	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
29 & Under	23%	20%	17%	16%	15%
30 - 39	17	15	13	12	11
40 & Over	15	12	10	8	6

During the first five years of service, withdrawal rates vary with age and service as follows:

After five years of service, withdrawal rates vary with age and gender as follows:

Age	Male	<u>Female</u>
20 - 24	12%	12%
25 - 29	8	10
30 - 34	5	8
35 - 39	4	6
40 - 44	3	5
45 - 49	3	4
50 & Over	2	3

For Judges, withdrawal rates at each age are one-half of the rates for members of the Main System, National Guard, and Law Enforcement with at least five years of service.

Withdrawal rates end upon the earlier of early retirement and Rule of 85 (Main System and Judges) eligibility.

# Retirement

The retirement rates reflect the expected percentage of members who will retire at each age. For Main System members, the rates vary with age, as follows:

Age	Rate
55	4%
56	6
57	6
58	6
59	6
60	8
61	15
62	35
63	25
64	25
65	40
66	20
67	20
68	20
69	20
70	100

The retirement rates for Judges begin at age 62. Thirty-five percent of Judges are assumed to retire at each age from 62 to 64, 50% are assumed to retire at each age from 65 to 69, and 100% of the remaining Judges are assumed to retire at age 70.

Retirement for members of the National Guard and Law Enforcement is assumed to occur at age 60.

Retirement for inactive vested members of the Main System and Judges is assumed to occur at the earlier of age 65 and Rule of 85. Retirement for inactive vested members of the National Guard is assumed to occur at age 55. Retirement for inactive vested members of the Law Enforcement is assumed to occur at the earlier of age 55 and Rule of 85.

Fifty percent of inactive vested Main System and Judges and 100% of inactive vested National Guard and Law Enforcement are assumed to elect a refund of employee contributions in lieu of a pension benefit.

# Annual Administrative Expenses

Annual administrative expenses for all Systems combined are assumed to be \$720,000.

# Marital Status for Non-Retired Members

At death, 75% of male members and 60% of female members are assumed to have spouses. Males are assumed to be five years older than their female spouses.

#### Valuation of Assets

Investments are valued at an adjusted market value. Interest and dividends are recognized immediately. The net market appreciation (depreciation) is spread over five years in equal dollar amounts, beginning with the year of occurrence. The actuarial value of assets is the market value less deferred appreciation (depreciation).

#### Actuarial Cost Method

The System is funded using the Entry Age Normal Actuarial Cost Method. This method produces costs that remain relatively level as a percentage of covered payroll.

Under the Entry Age Normal Method, the total contribution requirement has three components - an annual normal cost, an allowance for administrative expenses and a payment with respect to the unfunded/(surplus) actuarial accrued liability. The annual normal cost is calculated for each member as the level percentage of pay required over the member's period of covered employment to pay the total expected benefits. The normal cost is determined as if the current benefit accrual rate had always been in effect. If the actuarial assumptions are met, the total normal cost rate will remain level as a percentage of payroll.

The normal cost payments are sufficient to finance the benefit program only if there are no changes in plan design and all actuarial assumptions are realized. To the extent that actual experience is less favorable than assumed, additional liabilities not funded through normal cost payments arise. Also, benefit liberalizations that improve earned benefits or benefit eligibility produce additional liabilities. The Board has adopted a schedule of amortizing this unfunded/(surplus) actuarial accrued liability over an open period of 20 years. The annual payments are determined as a level percent of payroll, with payroll expected to increase 4.5% per year for the Main System, National Guard and Law Enforcement, and for Judges payroll is expected to increase 4.0% per year. This method provides payment in constant, or real, dollars.

#### APPENDIX A

#### October 11, 2004

#### NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

#### **ACTUARIAL VALUATION CERTIFICATE**

This is to certify that we have prepared an Actuarial Valuation of the System as of July 1, 2004 in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:

- I. Actuarial Valuation Results
- II. Actuarial Assumptions and Cost Methods
- III. Changes in Actuarial Assumptions and Cost Methods
- IV. Changes in Plan Provisions
- V. Summary of Plan Provisions

The valuation was based on information supplied by the Retirement Office with respect to member and financial data. We have not verified, and customarily would not verify, such information but we have no reason to doubt its substantial accuracy.

To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate and in our opinion each individual assumption used (a) is reasonably related to the experience of the System and to reasonable expectations and (b) represents our best estimate of anticipated experience under the System.

The undersigned are available to provide further information or to answer any questions regarding the report.

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Leslie L. Thompson, FSA, MAAA, EA Senior Vice President and Actuary

Marry Man

Wally Malles, ASA, MAAA, EA Assistant Actuary

# EXHIBIT I-A

# ACTUARIAL VALUATION RESULTS

# MAIN SYSTEM

	a.Active members\$798,822,005b.Special prior service pensions142,642c.Retired members and beneficiaries412,163,775d.Inactive non-retired members39,720,818	
	e. Total	\$1,250,849,240
2.	Assets at actuarial value (\$1,241,258,383 at market value)	1,172,258,036
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	78,591,204
4.	Member and employer normal cost for ensuing year*	44,743,189
5.	Estimated annual salaries of covered members	494,519,798
6.	Member normal cost - equals 4% of (5)	19,780,792
7.	Employer normal cost for ensuing year - equals (4) minus (6)	24,962,397
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary <sup>*</sup>	5,484,901
9.	Administrative expenses	710,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	31,157,298
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	6.30%

<sup>\*</sup> Adjusted for interest to recognize payments through the year.

# EXHIBIT I-B

# ACTUARIAL VALUATION RESULTS

# JUDGES

	a.Active members\$12,471,930b.Retired members and beneficiaries5,757,074c.Inactive non-retired members191,513d.Total	\$18,420,517
2.	Assets at actuarial value (\$21,987,431 at market value)	20,765,171
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	(2,344,654)
4.	Member and employer normal cost for ensuing year*	935,392
5.	Estimated annual salaries of covered members	4,415,921
6.	Member normal cost - equals 5% of (5)	220,796
7.	Employer normal cost for ensuing year - equals (4) minus (6)	714,596
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	(170,308)
9.	Administrative expenses	5,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	549,288
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	12.44%

 $<sup>^{\</sup>ast}$  Adjusted for interest to recognize payments through the year. \$A-3\$

# **EXHIBIT I-C**

# **ACTUARIAL VALUATION RESULTS**

# NATIONAL GUARD

	a.Active members\$833,690b.Retired members and beneficiaries252,949c.Inactive non-retired members63,684d.Total	\$1,150,323
2.	Assets at actuarial value (\$1,465,277 at market value)	1,383,824
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	(233,501)
4.	Member and employer normal cost for ensuing year*	56,058
5.	Estimated annual salaries of covered members	569,829
6.	Member normal cost - equals 4% of (5)	22,793
7.	Employer normal cost for ensuing year - equals (4) minus (6)	33,265
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	(16,296)
9.	Administrative expenses	1,533
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	18,502
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	3.25%

<sup>\*</sup> Adjusted for interest to recognize payments through the year.

# EXHIBIT I-D

# ACTUARIAL VALUATION RESULTS

# LAW ENFORCEMENT WITH PRIOR MAIN SERVICE

	a. Active members\$2,419,648b. Retired members and beneficiaries0c. Inactive non-retired members7,449d. Total	\$2,427,097
2.	Assets at actuarial value (\$2,239,134 at market value)	2,114,663
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	312,434
4.	Member and employer normal cost for ensuing year*	113,964
5.	Estimated annual salaries of covered members	1,165,355
6.	Member normal cost - equals 4% of (5)	46,614
7.	Employer normal cost for ensuing year - equals (4) minus (6)	67,350
8.	Amortization payment - equals 20- year amortization of item (3) as a level percent of aggregate salary <sup>*</sup>	. 21,805
9.	Administrative expenses	2,667
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	91,822
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	7.88%

<sup>\*</sup> Adjusted for interest to recognize payments through the year.

# EXHIBIT I-E

# **ACTUARIAL VALUATION RESULTS**

# LAW ENFORCEMENT WITHOUT PRIOR MAIN SERVICE

	a. Active members\$10,430b. Retired members and beneficiaries0c. Inactive non-retired members0d. Total0	\$10,430
2.	Assets at actuarial value (\$12,058 at market value)	11,388
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	(958)
4.	Member and employer normal cost for ensuing year*	40,185
5.	Estimated annual salaries of covered members	331,277
6.	Member normal cost - equals 4% of (5)	13,251
7.	Employer normal cost for ensuing year - equals (4) minus (6)	26,934
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	(67)
9.	Administrative expenses	800
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	27,667
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	8.35%

<sup>\*</sup> Adjusted for interest to recognize payments through the year.

# EXHIBIT I-F

# **ACTUARIAL VALUATION RESULTS**

# MAIN SYSTEM, JUDGES, NATIONAL GUARD AND LAW ENFORCEMENT PLAN COMBINED

	a. Active members\$814,557,703b. Special prior service pensions142,642c. Retired members and beneficiaries418,173,798d. Inactive non-retired members39,983,464e. Total\$	1,272,857,607
2.	Assets at actuarial value (\$1,266,962,283 at market value)	1,196,533,082
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	76,324,525
4.	Member and employer normal cost for ensuing year*	45,888,788
5.	Estimated annual salaries of covered members	501,002,180
6.	Member normal cost	20,084,246
7.	Employer normal cost for ensuing year - equals (4) minus (6)	25,804,542
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	5,320,035
9.	Administrative expenses	720,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	31,844,577
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	6.36%

<sup>\*</sup> Adjusted for interest to recognize payments through the year.

#### EXHIBIT II

# ACTUARIAL ASSUMPTIONS AND COST METHODS

#### 1. Mortality Tables:

Healthy: 1983 Group Annuity Mortality Table.

Disabled: Pension Benefit Guaranty Corporation Disabled Life Mortality Table for Individuals Receiving Social Security Disability Benefits.

# 2. Disability Incidence Rates:

Before age 65:	Males Females	42% of OASDI disability incidence rates. 30% of OASDI disability incidence rates.
Age 65 and later:	Males Females	0.25% per year. 0.35% per year.

Sample rates are as follows:

Age	<u>Male</u>	<u>Female</u>
20	0.03%	0.02%
30	0.05	0.03
40	0.09	0.07
50	0.25	0.18
60	0.68	0.49

# 3. Annual Withdrawal Rates:

Main System, National Guard and Law Enforcement:

First five years of service:

		Ye	ears of Service		
Age	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
29 & Under	23%	20%	17%	16%	15%
30 - 39	17	15	13	12	11
40 & Over	15	12	10	8	6

Age	Male	<u>Female</u>
20 - 24	12%	12%
25 - 29	8	10
30 - 34	5	8
35 - 39	4	6
40 - 44	3	5
45 - 49	3	4
50 & Over	2	3

Ultimate withdrawal rates after five years service:

#### Judges:

One-half of the Main System ultimate rates.

Withdrawal rates end upon eligibility for early retirement. Early retirement eligibility is as follows:

Main System:

Earlier of (i) age 55 and 3 years of service, and (ii) eligibility for Rule of 85.

Judges:

Earlier of (i) age 55 and 5 years of service, and (ii) eligibility for Rule of 85.

National Guard and Law Enforcement:

Age 50 and 3 years of service.

# 4. <u>Retirement Rates for Active Members</u>:

	<b>a</b> .
8/1/1111	Nuctow-
	System:

Age	Rate
55	4%
56	6
57	6
58	6
59	6
	-
60	8
61	15
62	35
63	25
64	25
65	40
66	20
67	20
68	20
69	20
70	100
Age	Rate
62	35%
63	35
64	35
65	50

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Age	Rate
62	35%
63	35
64	35
65	50
66	50
67	50
68	50
69	50
70	100

National Guard and Law Enforcement:

60

<u>Age</u>

100%

Rate

#### 5. Retirement Age for Inactive Vested Members:

Main System and Judges:

The earlier of:

- Age 65.
- Unreduced retirement date for each individual.

National Guard:

Age 55.

Law Enforcement:

The earlier of:

- Age 55.
- Unreduced retirement date for each individual.

#### 6. Interest Rate:

8.00% per annum, net of investment expenses.

#### 7. Annual Administrative Expenses:

Judges:	\$ 5,000.

National Guard and Law Enforcement combined: \$5,000.

#### 8. Salary Scale:

Main System, National Guard and Law Enforcement:

Less than five years of service: 7.00% per annum.

Five or more years of service (sample rates are as follows):

Age	Percentage Increase	Age	Percentage Increase
25	5.90%	45	4.90%
30	5.60	50	4.80
35	5.30	55	4.70
40	5.10	60	4.70

#### Judges:

5.50% per annum for all years of service.

#### 9. Payroll Growth:

Main System, National Guard and Law Enforcement:4.50% per annum.Judges:4.00% per annum.

#### 10. Marital Status:

At death, 75% of active male members and 60% of active female members are assumed to have spouses. Males are assumed to be five years older than their female spouses.

#### 11. Part-Time Employees:

One full year of service is credited for each future year of service.

#### 12. Split Service:

Liabilities are held in both plans based on service in each plan and are based on the actuarial assumptions of the plan in which they are currently active.

#### 13. Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. The unfunded actuarial accrued liability is amortized in installments increasing by the payroll growth assumption each year over an open 20-year period.

#### 14. Actuarial Value of Assets:

Adjusted market value that immediately recognizes interest and dividends. The procedure recognizes 20% of each year's total appreciation (depreciation) beginning with the year of occurrence. After five years, the appreciation (depreciation) is fully recognized.

#### 15. Social Security Disability (for Judges' disability benefit offset):

Eligibility: 50%

Consumer Price Index Increases: 4.5% per annum

Wage Base Increases: 5.0% per annum

#### 16. Workers' Compensation (for Judges' disability benefit offset):

None assumed.

# 17. Account Balance Due to Vested Employer Contribution (PEP):

Participation

Under Chapter 54-52.2:If not elected:50% of active members of the Main System,<br/>National Guard and Law Enforcement.If elected:If elected:100% of active members of the Main System,<br/>National Guard and Law Enforcement.

Contribution:

Maximum allowed based on service at the beginning of the Plan year.

# EXHIBIT III

# CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS

There were no changes in actuarial assumptions or the actuarial cost methods since the preceding valuation.

#### EXHIBIT IV

# CHANGES IN PLAN PROVISIONS

There were no changes in the plan provisions since the preceding valuation.

There were two new groups included in PERS during the 2003-2004 year. They are Law Enforcement with prior Main service and Law Enforcement without prior Main service. This actuarial valuation reflects an asset transfer from the Main System to the Law Enforcement with prior Main service of \$2,176,156 as of June 30, 2004. This transfer amount is equal to the Main System actuarial accrued liability for the 40 participants who transferred from Main to Law Enforcement with prior Main service.

#### EXHIBIT V

#### SUMMARY OF PLAN PROVISIONS

This exhibit summarizes the major benefit provisions of the North Dakota Public Employees Retirement System as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete statement of all plan provisions.

#### 1. Normal Service Retirement:

Eligibility:

Main System and Judges:

Attainment of age 65, or age plus service equal to at least 85 (Rule of 85).

National Guard:

Attainment of age 55 and three consecutive years of service.

Law Enforcement:

Attainment of age 55 and three consecutive years of service, or age plus service equal to at least 85 (Rule of 85).

Benefit:

Main System, National Guard and Law Enforcement:

2.00% of final average salary multiplied by service.

Judges:

3.50% of final average salary for each of the first ten years of service, 2.80% for each of the next ten years of service, and 1.25% for service in excess of twenty years.

#### 2. Early Service Retirement:

Eligibility:

Main System:

Attainment of age 55 with three years of service.

Judges:

Attainment of age 55 with five years of service.

National Guard and Law Enforcement:

Attainment of age 50 with three years of service.

Benefit:

Main System:

The Normal Service Retirement Benefit as determined above. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before the earlier of age 65 or the age at which the Rule of 85 is met.

Judges:

The Normal Service Retirement Benefit as determined above. A benefit that begins before age 65 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before age 65.

National Guard:

The Normal Service Retirement Benefit as determined above. A benefit that begins before age 55 is reduced by one-half of one percent for each month before age 55.

Law Enforcement:

The Normal Service Retirement Benefit as determined above. A benefit that begins before age 55 (or Rule of 85, if earlier) is reduced by one-half of one percent for each month before age 55.

#### 3. **Disability Benefit:**

**Eligibility:** 

Six months of service and inability to engage in any substantial gainful activity.

Benefit:

Main System, National Guard and Law Enforcement:

25% of the member's final average salary at disability, with a minimum of 100 per month.

Judges:

70% of the member's final average salary at disability minus Social Security and Workers' Compensation benefits paid.

#### 4. <u>Deferred Vested Retirement</u>:

Eligibility:

Main System, National Guard and Law Enforcement:

Three years of service.

Judges:

Five years of service.

Benefit:

Main System and Judges:

The Normal Service Retirement Benefit payable at age 65 or the Rule of 85, if earlier. Reduced early retirement benefits can be elected upon attainment of age 55.

National Guard:

The Normal Service Retirement Benefit payable at age 55. Reduced early retirement benefits can be elected upon attainment of age 50.

Law Enforcement:

The Normal Service Retirement Benefit payable at age 55 or the Rule of 85, if earlier. Reduced early retirement benefit can be selected upon attainment of age 50.

#### 5. Pre-Retirement Death Benefits:

Eligibility:

Main System, National Guard and Law Enforcement:

Three years of service.

Judges:

Five years of service.

#### Benefit:

Main System, National Guard and Law Enforcement:

One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- The member's accrued benefit payable for 60 months to the surviving spouse.
- 50% of the member's accrued benefit (not reduced on account of age) payable for the surviving spouse's lifetime.
- Continuation portion of 100% joint and survivor annuity (only if participant was eligible for normal retirement).

#### Judges:

One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- 100% of the member's accrued benefit (not reduced on account of age) payable for the spouse's lifetime.

#### Eligibility:

Main System, Judges, National Guard and Law Enforcement:

Not vested nor a surviving spouse.

#### Benefit:

Main System, Judges, National Guard and Law Enforcement:

Lump sum payment of member's accumulated contributions with interest.

#### 6. Refund of Member Contributions:

Paid to terminated non-vested members and terminated vested members who chose refund in lieu of a monthly retirement benefit.

#### 7. Accumulated Member Contributions:

Member contributions accumulate with interest at the following rates:

Time Period

Through June 30, 1981

Per Annum Interest Rate 5.0% 6.0%

July 1, 1981 to June 30, 1986 After June 30, 1986

0.5% less than the actuarial interest rate assumption

#### 8. Standard and Optional Forms of Payment:

Standard form of payment:

Main System, National Guard and Law Enforcement:

Monthly benefit for life with a refund to beneficiary at death of the remaining balance (if any) of accumulated member contributions.

Judges:

Monthly benefit for life, with 50% payable to an eligible survivor.

Optional forms of payment:

Life annuity (for Judges), 50% joint and survivor annuity (for Main System, National Guard and Law Enforcement), 100% joint and survivor annuity (with pop-up feature), five-year certain and life annuity, ten-year certain and life annuity, or a level Social Security income annuity.

#### 9. Final Average Salary:

Average of the highest salary received by the member for any 36 consecutive months employed during the last 120 months of employment.

#### 10. <u>Contributions</u>:

Contribution rates specified in the Century Code (except employer rate for National Guard and Law Enforcement); differ between permanent full-time employees and part-time temporary employees. Rates are as follows:

	Full-Time <u>Employees</u>	Employer
Main System	4.00%	4.12%
Judges	5.00%	14.52%
National Guard	4.00%	8.33%
Law Enforcement with prior Main service	4.00%	8.31%
Law Enforcement without prior Main service	4.00%	6.43%

Part-time employees in the Main System contribute 8.12%, with no employer contributions.

Effective January 1, 2000:

A member's account balance includes vested employer contributions equal to the member's contributions to the deferred compensation Plan under chapter 54-52.2. The vested employer contribution may not exceed:

- 1. For months one through 12 of service credit, \$25 or 1% of the member's monthly salary, whichever is greater.
- 2. For months 13 through 24 of service credit, \$25 or 2% of the member's monthly salary, whichever is greater.
- 3. For months 25 through 36 of service credit, \$25 or 3% of the member's monthly salary, whichever is greater.
- 4. For service exceeding 36 months, \$25 or 4% of the member's monthly salary, whichever is greater.
- 5. The vested employer contribution may not exceed 4% of the member's monthly salary.

Vested employer contributions are credited monthly to the member's account balance.

#### 11. <u>Rollovers</u>:

The fund may accept rollovers from other qualified plans under rules adopted by the Board for the purchase of additional service credit.

# **APPENDIX B: CENSUS TABLES**

I.	Active (A)	e Members Number of active members grouped by nearest age and years of employment:		Table Designation
		Males Females All		8-A 8-B 8-C
	(B)	Number of active members grouped by nearest age and salary: Males Females All		9-A 9-B 9-C
II.	Curren (A)	nt Plan Pensions Distribution of pensions awarded during the year by amount of benefit and type of pension: Males Females All		10-A 10-B 10-C
	(B)	Distribution of pensions awarded during the year by nearest age and type of pension: Males Females All		11-A 11-B 11-C
	(C)	Distribution of pensions in force by amount of benefit and type of pension: Males Females All		12-A 12-B 12-C
	(D)	Distribution of pensions in force by nearest age and type of pension: Males Females All	н Т	13-A 13-B 13-C
III.	Specia (A)	l Prior Service Pensions Distribution of pensions in force by amount of benefit: Males Females All		14-A 14-B 14-C
	(B)	Distribution of pensions in force by nearest age: Males Females All		15-A 15-B 15-C

**TABLE 8-A** 

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Census of Members in Active Service on July 1, 2004 by Nearest Age and Years of Employment in PERS

|             |       |               |       |       | Years of Employment | ployment |       |       |           |
|-------------|-------|---------------|-------|-------|---------------------|----------|-------|-------|-----------|
| Nearest Age | Total | Total Under 5 | 5-9   | 10-14 | 15-19               | 20-24    | 25-29 | 30-34 | 35 & Over |
| Total       | 6,936 | 2,390         | 1,386 | 980   | 772                 | 743      | 420   | 167   | 78        |
| Under 20    | 4     | 4             | E     | 1     | I                   | 3        | F     | ı     | 1         |
| 20-24       | 151   | 150           | 1     | I     | I                   | ı        | I     | 1     | I         |
| 25-29       | 435   | 367           | 68    | I     | ı                   | I        | 1     | I     | I         |
| 30-34       | 561   | 316           | 211   | 34    | I                   | 1        | I     | ı     | ı         |
| 35-39       | 667   | 272           | 179   | 182   | 34                  | I        | ı     | I     | I         |
| 40-44       | 888   | 309           | 185   | 167   | 154                 | 70       | 3     | ı     | t         |
| 45-49       | 1,146 | 307           | 220   | 157   | 173                 | 214      | 73    | 5     | I         |
| 50-54       | 1,243 | 267           | 202   | 169   | 162                 | 217      | 172   | 52    | 7         |
| 55-59       | 1,048 | 221           | 164   | 152   | 142                 | 133      | 129   | 80    | 27        |
| 60-64       | 528   | 106           | 98    | 75    | 76                  | 76       | 34    | 26    | 37        |
| 62-69       | 193   | 49            | 40    | 32    | 23                  | 28       | 9     | 4     | 11        |
| 70-74       | 51    | 12            | 13    | 11    | 9                   | 4        | 3     | 2     | I         |
| 75 & Over   | 21    | 10            | S     | ÷1    | 2                   | +1       | ł     | 1     | 1         |

(Males - Main System, Judges, National Guard, and Law Enforcement)

**TABLE 8-B** 

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Census of Members in Active Service on July 1, 2004 by Nearest Age and Years of Employment in PERS

|             | I      |         |       |       | Years of Employment | ployment |       |       |           |
|-------------|--------|---------|-------|-------|---------------------|----------|-------|-------|-----------|
| Nearest Age | Total  | Under 5 | 5-9   | 10-14 | 15-19               | 20-24    | 25-29 | 30-34 | 35 & Over |
| Total       | 10,700 | 4,110   | 2,315 | 1,505 | 1,195               | 870      | 484   | 159   | 62        |
| Under 20    | 4      | 4       | I     | I     | 1                   | t        | T     | 1     | 1         |
| 20-24       | 207    | 207     | F     | I     | ı                   | I        | 1     | ł     | I         |
| 25-29       | 608    | 541     | 67    | ı     | I                   | ı        | ı     | ı     | •         |
| 30-34       | 842    | 535     | 264   | 43    | ı                   | I        | 1     | ı     | '         |
| 35-39       | 1,013  | 511     | 253   | 180   | 64                  | 5        | I     | ı     | ı         |
| 40-44       | 1,702  | 680     | 412   | 231   | 220                 | 155      | 4     | t     | I         |
| 45-49       | 2,064  | 668     | 491   | 324   | 221                 | 193      | 157   | 10    | 1         |
| 50-54       | 1,954  | 501     | 406   | 339   | 280                 | 183      | 157   | 82    | 9         |
| 55-59       | 1,349  | 276     | 242   | 214   | 259                 | 177      | 106   | 43    | 32        |
| 60-64       | 707    | 128     | 124   | 129   | 113                 | 129      | 48    | 18    | 18        |
| 62-69       | 178    | 37      | 40    | 37    | 25                  | 22       | 6     | 4     | 4         |
| 70-74       | 65     | 20      | 14    | 8     | 12                  | 5        | 2     | 7     | 2         |
| 75 & Over   | 7      | 2       | 2     | ı     | 1                   | 1        | 1     | I     | ı         |

(Females - Main System, Judges, National Guard, and Law Enforcement)

**TABLE 8-C** 

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# Census of Members in Active Service on July 1, 2004 by Nearest Age and Years of Employment in PERS

|             |        |         |       |       | Years of Employment | ployment |       |       |           |
|-------------|--------|---------|-------|-------|---------------------|----------|-------|-------|-----------|
| Nearest Age | Total  | Under 5 | 5-9   | 10-14 | 15-19               | 20-24    | 25-29 | 30-34 | 35 & Over |
| Total       | 17,636 | 6,500   | 3,701 | 2,485 | 1,967               | 1,613    | 904   | 326   | 140       |
| Under 20    | 8      | 8       | 1     | 3     | I                   | 1        | 1     |       | 1         |
| 20-24       | 358    | 357     | 1     | I     | I                   | I        |       | F     | I         |
| 25-29       | 1,043  | 906     | 135   | ı     |                     | I        | I     | I     | I         |
| 30-34       | 1,403  | 851     | 475   | LT    | ı                   | ı        | ·     | ı     | I         |
| 35-39       | 1,680  | 783     | 432   | 362   | 98                  | 5        | I     | ı     | ı         |
| 40-44       | 2,590  | 989     | 597   | 398   | 374                 | 225      | L     | I     | I         |
| 45-49       | 3,210  | 975     | 711   | 481   | 394                 | 407      | 230   | 12    | ı         |
| 50-54       | 3,197  | 768     | 608   | 508   | 442                 | 400      | 329   | 134   | 80        |
| 55-59       | 2,397  | 497     | 406   | 366   | 401                 | 310      | 235   | 123   | 59        |
| 60-64       | 1,235  | 234     | 222   | 204   | 189                 | 205      | 82    | 44    | 55        |
| 62-69       | 371    | 86      | 80    | 69    | 48                  | 50       | 15    | 8     | 15        |
| 70-74       | 116    | 32      | 27    | 19    | 18                  | 6        | ŝ     | 4     | 2         |
| 75 & Over   | 28     | 12      | 7     | Ť     | ω                   | 7        |       | 1     | 1         |

# (All Members - Main System, Judges, National Guard, and Law Enforcement)

**TABLE 9-A** 

# Census of Members in Active Service on July 1, 2004 by Nearest Age and Salary

(Males - Main System, Judges, National Guard, and Law Enforcement)

|             |       |                         |           |           |           | Salary    | ary       | -         |           |           |          |
|-------------|-------|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
|             |       | Less than \$1           | \$10,000- | \$15,000- | \$20,000- | \$25,000- | \$30,000- | \$35,000- | \$40,000- | \$45,000- | \$50,000 |
| Nearest Age | Total | Total \$10,000 \$14,999 | \$14,999  | \$19,999  | \$24,999  | \$29,999  | \$34,999  | \$39,999  | \$44,999  | \$49,999  | & Over   |
| Total _     | 6,936 | 204                     | 250       | 627       | 1,220     | 1,370     | 1,200     | 657       | 489       | 319       | 909      |
| Under 20    | 4     | 2                       | Ţ         | 1         | 1         |           |           | 1         |           | 1         | 1        |
| 20-24       | 151   | 13                      | 11        | 27        | 46        | 31        | 17        | 9         | 1         | I         | ı        |
| 25-29       | 435   | L                       | 10        | 49        | 104       | 117       | 89        | 32        | 18        | 8         | 1        |
| 30-34       | 561   | 11                      | 14        | 58        | 114       | 132       | 114       | 45        | 34        | 28        | 11       |
| 35-39       | 667   | 15                      | 14        | 49        | 130       | 148       | 111       | 99        | 63        | 33        | 38       |
| 40-44       | 888   | 12                      | 29        | 82        | 147       | 183       | 152       | LL        | 78        | 44        | 84       |
| 45-49       | 1,146 | 27                      | 39        | 93        | 191       | 227       | 201       | 128       | 81        | 63        | 96       |
| 50-54       | 1,243 | 21                      | 30        | 102       | 194       | 240       | 225       | 123       | 94        | 65        | 149      |
| 55-59       | 1,048 | 29                      | 33        | 93        | 164       | 180       | 189       | 107       | 74        | 43        | 136      |
| 60-64       | 528   | 24                      | 25        | 42        | 89        | 83        | 78        | 57        | 39        | 26        | 65       |
| 65-69       | 193   | 21                      | 25        | 20        | 34        | 24        | 22        | 14        | œ         | 6         | 16       |
| 70-74       | 51    | 14                      | 16        | 5         | 5         | 4         | Ţ         | 2         | I         | I         | 4        |
| 75 & Over   | 21    | 8                       | 3         | 9         | 7         | 1         | 1         | ı         | I         | I         | ı        |

**TABLE 9-B** 

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# Census of Members in Active Service on July 1, 2004 by Nearest Age and Salary

(Females - Main System, Judges, National Guard, and Law Enforcement)

|             |        |                |              |           |           | Salary    | ary       |           |           |           |          |
|-------------|--------|----------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
|             |        | Less than \$   | \$10,000-    | \$15,000- | \$20,000- | \$25,000- | \$30,000- | \$35,000- | \$40,000- | \$45,000- | \$50,000 |
| Nearest Age | Total  | Total \$10,000 | \$14,999     | \$19,999  | \$24,999  | \$29,999  | \$34,999  | \$39,999  | \$44,999  | \$49,999  | & Over   |
| Total       | 10,700 | 567            | 1,531        | 2,049     | 2,287     | 1,741     | 1,193     | 557       | 335       | 206       | 234      |
| Under 20    | 4      | 3              | <b>م</b> سبو | I         |           | I         | 1         | 1         | 1         |           |          |
| 20-24       | 207    | 34             | 47           | 64        | 36        | 18        | 7         | ı         | I         | ı         |          |
| 25-29       | 608    | 38             | 69           | 142       | 154       | 103       | 61        | 23        | 11        | 7         | ı        |
| 30-34       | 842    | 48             | 114          | 133       | 191       | 145       | 120       | 47        | 25        | 13        | 9        |
| 35-39       | 1,013  | 67             | 136          | 185       | 220       | 164       | 121       | 50        | 27        | 21        | 22       |
| 40-44       | 1,702  | 92             | 295          | 295       | 363       | 250       | 190       | 90        | 59        | 27        | 41       |
| 45-49       | 2,064  | 76             | 302          | 425       | 398       | 324       | 230       | 116       | 72        | 50        | 50       |
| 50-54       | 1,954  | 72             | 239          | 358       | 416       | 332       | 247       | 118       | 70        | 47        | 55       |
| 55-59       | 1,349  | 48             | 150          | 261       | 302       | 249       | 135       | 83        | 57        | 23        | 41       |
| 60-64       | 707    | 30             | 119          | 127       | 163       | 131       | 70        | 25        | 10        | 16        | 16       |
| 62-69       | 178    | 21             | 40           | 40        | 34        | 22        | 6         | S         | ε         | 7         | 5        |
| 70-74       | 65     | 16             | 17           | 17        | 6         | 3         | 3         | 1         | ı         | I         | 1        |
| 75 & Over   | 7      | 1              | 2            | 2         | 1         | I         | ı         | ı         | 1         | '         | 1        |

**TABLE 9-C** 

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# Census of Members in Active Service on July 1, 2004 by Nearest Age and Salary

(All Members - Main System, Judges, National Guard, and Law Enforcement)

|             |        |                |           |           |           | Salary    | ary       |           |           |           |          |
|-------------|--------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| ·           |        | Less than \$1  | \$10,000- | \$15,000- | \$20,000- | \$25,000- | \$30,000- | \$35,000- | \$40,000- | \$45,000- | \$50,000 |
| Nearest Age | Total  | Total \$10,000 | \$14,999  | \$19,999  | \$24,999  | \$29,999  | \$34,999  | \$39,999  | \$44,999  | \$49,999  | & Over   |
| Total       | 17,636 | 171            | 1,781     | 2,676     | 3,507     | 3,111     | 2,393     | 1,214     | 824       | 525       | 834      |
| Under 20    | 8      | 5              | 2         | 1         | I         | ı         | 1         | 1         | 1         | I         | ŀ        |
| 20-24       | 358    | 47             | 58        | 91        | 82        | 49        | 24        | 9         | I         | I         | 1        |
| 25-29       | 1,043  | 45             | 62        | 191       | 258       | 220       | 150       | 55        | 29        | 15        | 1        |
| 30-34       | 1,403  | 59             | 128       | 191       | 305       | 277       | 234       | 92        | 59        | 41        | 17       |
| 35-39       | 1,680  | 82             | 150       | 234       | 350       | 312       | 232       | 116       | 90        | 54        | 60       |
| 40-44       | 2,590  | 104            | 324       | 377       | 510       | 433       | 342       | 167       | 137       | 71        | 125      |
| 45-49       | 3,210  | 124            | 341       | 518       | 589       | 551       | 431       | 244       | 153       | 113       | 146      |
| 50-54       | 3,197  | 93             | 269       | 460       | 610       | 572       | 472       | 241       | 164       | 112       | 204      |
| 55-59       | 2,397  | LL             | 183       | 354       | 466       | 429       | 324       | 190       | 131       | 99        | 177      |
| 60-64       | 1,235  | 54             | 144       | 169       | 252       | 214       | 148       | 82        | 49        | 42        | 81       |
| 62-69       | 371    | 42             | 65        | 60        | 68        | 46        | 31        | 19        | 11        | 11        | 18       |
| 70-74       | 116    | 30             | 33        | 22        | 14        | L         | 4         | 2         | I         | ı         | 4        |
| 75 & Over   | 28     | 6              | 5         | 8         | 3         | 1         | 1         | 1         | 1         | I         | I        |

# TABLE 10-A

# Pensions Awarded During the Year Ended June 30, 2004 by Type of Pension and Monthly Amount

| Monthly      |       |        | Type of F | ension     |            |
|--------------|-------|--------|-----------|------------|------------|
| Amount       | Total | Normal | Early     | Disability | Rule of 85 |
| Total        | 152   | 46     | 33        | 8          | 65         |
| Under \$200  | 12    | 5      | 7         | -          | -          |
| 200-399      | 27    | 8      | 12        | 6          | 1          |
| 400-599      | 8     | 2      | 5         | 1          | -          |
| 600-799      | 8     | 5      | 2         | -          | 1          |
| 800-999      | 11    | 6      | 2         | -          | 3          |
| 1,000-1,199  | 17    | 5      | 2         | 1          | 9          |
| 1,200-1,399  | 11    | 3      | 1         | -          | 7          |
| 1,400-1,599  | 6     | 2      | 1         | -          | 3          |
| 1,600-1,799  | 10    | 1      | -         | -          | 9          |
| 1,800-1,999  | 4     | -      | -         | _          | 4          |
| 2,000-2,199  | 6     | -      | -         | -          | 6          |
| 2,200-2,399  | 12    | 2      | 1         | -          | 9          |
| 2,400-2,599  | 3     | -      | -         | -          | 3          |
| 2,600-2,799  | 5     | 1      | -         | -          | 4          |
| 2,800-2,999  | 4     | 1      | -         | -          | 3          |
| 3,000-3,199  | 1     | -      | -         | -          | 1          |
| 3,200-3,399  | -     | -      | -         | -          | -          |
| 3,400-3,599  | 1     | -      | -         | -          | 1          |
| 3,600-3,799  | _     | -      | -         | -          | -          |
| 3,800-3,999  | 1     | -      | -         | -          | 1          |
| 4,000-4,199  | 1     | 1      | -         | -          | -          |
| 4,200-4,399  | _     | -      | -         | -          | -          |
| 4,400-4,599  | -     | -      | -         | -          | -          |
| 4,600-4,799  | 2     | 2      | -         | -          | -          |
| 4,800-4,999  | 1     | 1      | -         | -          | -          |
| 5,000 & Over | 1     | 1      | _         | <u> </u>   |            |

# (Males - Main System, Judges, National Guard, and Law Enforcement)

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# TABLE 10-B

# Pensions Awarded During the Year Ended June 30, 2004 by Type of Pension and Monthly Amount

| Monthly      |       | Type of Pension |          |            |            |  |  |
|--------------|-------|-----------------|----------|------------|------------|--|--|
| Amount       | Total | Normal          | Early    | Disability | Rule of 85 |  |  |
| Total        | 187   | 64              | 49       | 17         | 57         |  |  |
| Under \$200  | 22    | 10              | 11       | _          | 1          |  |  |
| 200-399      | 45    | 20              | 18       | 7          | -          |  |  |
| 400-599      | 34    | 14              | 14       | 5          | 1          |  |  |
| 600-799      | 24    | 7               | 3        | 5          | 9          |  |  |
| 800-999      | 14    | 3               | 2        | _          | 9          |  |  |
| 1,000-1,199  | 12    | 3               | 1        | -          | 8          |  |  |
| 1,200-1,399  | 12    | 3               | -        | -          | 9          |  |  |
| 1,400-1,599  | 6     | 1               | -        | -          | 5          |  |  |
| 1,600-1,799  | 8     | 1               | -        | -          | 7          |  |  |
| 1,800-1,999  | 3     | 1               | -        | -          | 2          |  |  |
| 2,000-2,199  | 4     | 1               | -        | -          | 3          |  |  |
| 2,200-2,399  | 2     | -               | -        | -          | 2          |  |  |
| 2,400-2,599  | 1     | -               | -        | -          | 1          |  |  |
| 2,600-2,799  | -     | -               | -        | -          | -          |  |  |
| 2,800-2,999  | -     | -               | -        | -          | -          |  |  |
| 3,000-3,199  | -     | -               | -        | _          | -          |  |  |
| 3,200-3,399  | -     | -               | -        | -          | -          |  |  |
| 3,400-3,599  | -     | -               | -        | -          | -          |  |  |
| 3,600-3,799  | -     | -               | -        | -          | -          |  |  |
| 3,800-3,999  | -     | -               | -        | -          | -          |  |  |
| 4,000-4,199  | -     | -               | -        | _          | -          |  |  |
| 4,200-4,399  | -     | -               | -        | -          | -          |  |  |
| 4,400-4,599  | -     | -               | -        | -          | -          |  |  |
| 4,600-4,799  | -     | -               | -        | -          | _          |  |  |
| 4,800-4,999  | -     | -               | _        | -          | -          |  |  |
| 5,000 & Over | _     | <u></u>         | <u> </u> | _          | -          |  |  |

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# (Females - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 10-C

# Pensions Awarded During the Year Ended June 30, 2004 by Type of Pension and Monthly Amount

| Monthly      |       |        | Type of P | ension     |            |
|--------------|-------|--------|-----------|------------|------------|
| Amount       | Total | Normal | Early     | Disability | Rule of 85 |
| Total        | 339   | 110    | 82        | 25         | 122        |
| Under \$200  | 34    | 15     | 18        | -          | 1          |
| 200-399      | 72    | 28     | 30        | 13         | 1          |
| 400-599      | 42    | 16     | 19        | 6          | 1          |
| 600-799      | 32    | 12     | 5         | 5          | 10         |
| 800-999      | 25    | 9      | 4         | -          | 12         |
| 1,000-1,199  | 29    | 8      | 3         | 1          | 17         |
| 1,200-1,399  | 23    | 6      | 1         | -          | 16         |
| 1,400-1,599  | 12    | 3      | 1         | -          | 8          |
| 1,600-1,799  | 18    | 2      | -         | -          | 16         |
| 1,800-1,999  | 7     | 1      | -         | -          | 6          |
| 2,000-2,199  | 10    | 1      | -         | -          | 9          |
| 2,200-2,399  | 14    | 2      | 1         | -          | 11         |
| 2,400-2,599  | 4     | -      | -         | -          | 4          |
| 2,600-2,799  | 5     | 1      | -         | -          | 4          |
| 2,800-2,999  | 4     | 1      | -         | -          | 3          |
| 3,000-3,199  | 1     | -      | -         | -          | 1          |
| 3,200-3,399  | -     | -      | -         | -          | -          |
| 3,400-3,599  | 1     | -      | -         | -          | 1          |
| 3,600-3,799  | -     | -      | -         | -          | -          |
| 3,800-3,999  | 1     | -      | -         | -          | 1          |
| 4,000-4,199  | 1     | 1      | -         | -          | -          |
| 4,200-4,399  | -     | -      | -         | -          | -          |
| 4,400-4,599  | -     | -      | -         | -          | -          |
| 4,600-4,799  | 2     | 2      | -         | -          | -          |
| 4,800-4,999  | 1     | 1      | -         | -          | -          |
| 5,000 & Over | 1     | 1      |           |            | -          |

# (All Members - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 11-A

# Pensions Awarded During the Year Ended June 30, 2004 by Type of Pension and Nearest Age

|             |       |        | Type of F | ension     |            |
|-------------|-------|--------|-----------|------------|------------|
| Nearest Age | Total | Normal | Early     | Disability | Rule of 85 |
| Total       | 152   | 46     | 33        | 8          | 65         |
| Under 50    | 2     | -      | -         | 2          | -          |
| 50-54       | 14    | -      | -         | 2          | 12         |
| 55-59       | 28    | -      | 3         | 3          | 22         |
| 60-64       | 60    | -      | 30        | 1          | 29         |
| 65-69       | 36    | 34     | -         | _          | 2          |
| 70-74       | 8     | 8      | -         | -          | -          |
| 75 & Over   | 4     | 4      | -         | -          | -          |

# (Males - Main System, Judges, National Guard, and Law Enforcement)

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# TABLE 11-B

# Pensions Awarded During the Year Ended June 30, 2004 by Type of Pension and Nearest Age

|             |       |        | Type of F | ension     |            |
|-------------|-------|--------|-----------|------------|------------|
| Nearest Age | Total | Normal | Early     | Disability | Rule of 85 |
| Total       | 187   | 64     | 49        | 17         | 57         |
| Under 50    | 4     | -      | -         | 4          | -          |
| 50-54       | 12    | -      | -         | 5          | 7          |
| 55-59       | 32    | -      | 13        | 6          | 13         |
| 60-64       | 73    | -      | 36        | 2          | 35         |
| 65-69       | 50    | 48     | -         | -          | 2          |
| 70-74       | 14    | 14     | -         | -          | -          |
| 75 & Over   | 2     | 2      | -         | -          | -          |

# (Females - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 11-C

# Pensions Awarded During the Year Ended June 30, 2004 by Type of Pension and Nearest Age

|             | Type of Pension |        |       |            |            |  |
|-------------|-----------------|--------|-------|------------|------------|--|
| Nearest Age | Total           | Normal | Early | Disability | Rule of 85 |  |
| Total       | 339             | 110    | 82    | 25         | 122        |  |
| Under 50    | 6               | -      | -     | 6          | -          |  |
| 50-54       | 26              | -      | -     | 7          | 19         |  |
| 55-59       | 60              | -      | 16    | 9          | 35         |  |
| 60-64       | 133             | -      | 66    | 3          | 64         |  |
| 65-69       | 86              | 82     | -     | -          | 4          |  |
| 70-74       | 22              | 22     | -     | -          | -          |  |
| 75 & Over   | 6               | 6      | -     | -          | -          |  |

# (All Members - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 12-A

# Current Plan Pensions in Force on July 1, 2004 by Type of Pension and Monthly Amount

# (Males - Main System, Judges, National Guard, and Law Enforcement)

| Monthly      |       |        | Type of P | ension     | ······································ |
|--------------|-------|--------|-----------|------------|----------------------------------------|
| Amount       | Total | Normal | Early     | Disability | Service*                               |
| Total        | 2,279 | 797    | 554       | 145        | 783                                    |
| Under \$200  | 256   | 148    | 89        | 12         | 7                                      |
| 200-399      | 407   | 174    | 163       | 62         | 8                                      |
| 400-599      | 337   | 133    | 146       | 48         | 10                                     |
| 600-799      | 208   | 96     | 79        | 14         | 19                                     |
| 800-999      | 169   | 59     | 34        | 5          | 71                                     |
| 1,000-1,199  | 184   | 54     | 16        | 2          | 112                                    |
| 1,200-1,399  | 154   | 30     | 9         | -          | 115                                    |
| 1,400-1,599  | 106   | 21     | 4         | 1          | 80                                     |
| 1,600-1,799  | 95    | 17     | 4         | -          | 74                                     |
| 1,800-1,999  | 72    | 15     | 3         | -          | 54                                     |
| 2,000-2,199  | 63    | 10     | 1         | 1          | 51                                     |
| 2,200-2,399  | 61    | 8      | 4         | -          | 49                                     |
| 2,400-2,599  | 40    | 3      | -         | -          | 37                                     |
| 2,600-2,799  | 36    | 8      | -         | -          | 28                                     |
| 2,800-2,999  | 21    | 6      | -         | -          | 15                                     |
| 3,000-3,199  | 16    | 1      | -         | -          | 15                                     |
| 3,200-3,399  | 16    | 1      | 1         | -          | 14                                     |
| 3,400-3,599  | 8     | -      | 1         | -          | 7                                      |
| 3,600-3,799  | 4     | 2      | -         | -          | 2                                      |
| 3,800-3,999  | 7     | 1      | -         | -          | 6                                      |
| 4,000-4,199  | 4     | 1      | -         | _          | 3                                      |
| 4,200-4,399  | 7     | 4      | -         | -          | 3                                      |
| 4,400-4,599  | 1     | -      | -         | _          | 1                                      |
| 4,600-4,799  | 3     | 2      | -         | -          | 1                                      |
| 4,800-4,999  | 1     | 1      | -         | -          | -                                      |
| 5,000 & Over | 3     | 2      | -         | -          | 1                                      |

\* Includes Rule of 85, Rule of 88, and Rule of 90.

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# TABLE 12-B

# Current Plan Pensions in Force on July 1, 2004 by Type of Pension and Monthly Amount

# (Females - Main System, Judges, National Guard, and Law Enforcement)

| Monthly      |       |        | Type of F | Pension    |          |
|--------------|-------|--------|-----------|------------|----------|
| Amount       | Total | Normal | Early     | Disability | Service* |
| Total        | 2,801 | 951    | 1,134     | 174        | 542      |
| Under \$200  | 512   | 184    | 309       | 16         | 3        |
| 200-399      | 845   | 302    | 466       | 76         | 1        |
| 400-599      | 513   | 202    | 238       | 55         | 18       |
| 600-799      | 301   | 125    | 80        | 22         | 74       |
| 800-999      | 215   | 51     | 25        | 4          | 135      |
| 1,000-1,199  | 141   | 35     | 12        | 1          | 93       |
| 1,200-1,399  | 98    | 26     | 3         | -          | 69       |
| 1,400-1,599  | 57    | 10     | -         | _          | 47       |
| 1,600-1,799  | 48    | 8      | 1         | -          | 39       |
| 1,800-1,999  | 19    | 1      | -         | -          | 18       |
| 2,000-2,199  | 26    | 2      | -         | -          | 24       |
| 2,200-2,399  | 9     | 1      | -         | -          | 8        |
| 2,400-2,599  | 4     | -      | -         | -          | 4        |
| 2,600-2,799  | 5     | -      | -         | -          | 5        |
| 2,800-2,999  | 2     | -      | -         | -          | 2        |
| 3,000-3,199  | 1     | 1      | -         | -          | -        |
| 3,200-3,399  | 2     | 1      | -         | -          | 1        |
| 3,400-3,599  | 1     | -      | -         | -          | 1        |
| 3,600-3,799  | 1     | 1      | -         | -          | -        |
| 3,800-3,999  | 1     | 1      | -         | -          | -        |
| 4,000-4,199  | -     | -      | -         | -          | -        |
| 4,200-4,399  | -     | -      | -         | -          | -        |
| 4,400-4,599  | -     | -      | -         | -          | -        |
| 4,600-4,799  | -     | -      | -         | -          | -        |
| 4,800-4,999  | -     | -      | -         | -          | -        |
| 5,000 & Over | -     | -      | -         | -          | -        |

# TABLE 12-C

# Current Plan Pensions in Force on July 1, 2004 by Type of Pension and Monthly Amount

# (All Members - Main System, Judges, National Guard, and Law Enforcement)

| Monthly      |       |        | Type of F | Pension    |          |
|--------------|-------|--------|-----------|------------|----------|
| Amount       | Total | Normal | Early     | Disability | Service* |
| Total        | 5,080 | 1,748  | 1,688     | 319        | 1,325    |
| Under \$200  | 768   | 332    | 398       | 28         | 10       |
| 200-399      | 1,252 | 476    | 629       | 138        | 9        |
| 400-599      | 850   | 335    | 384       | 103        | 28       |
| 600-799      | 509   | 221    | 159       | 36         | 93       |
| 800-999      | 384   | 110    | 59        | 9          | 206      |
| 1,000-1,199  | 325   | 89     | 28        | 3          | 205      |
| 1,200-1,399  | 252   | 56     | 12        | -          | 184      |
| 1,400-1,599  | 163   | 31     | 4         | 1          | 127      |
| 1,600-1,799  | 143   | 25     | 5         | -          | 113      |
| 1,800-1,999  | 91    | 16     | 3         | -          | 72       |
| 2,000-2,199  | 89    | 12     | 1         | 1          | 75       |
| 2,200-2,399  | 70    | 9      | 4         | -          | 57       |
| 2,400-2,599  | 44    | 3      | -         | -          | 41       |
| 2,600-2,799  | 41    | 8      | -         | -          | 33       |
| 2,800-2,999  | 23    | 6      | -         | -          | 17       |
| 3,000-3,199  | 17    | 2      | -         | -          | 15       |
| 3,200-3,399  | 18    | 2      | 1         | -          | 15       |
| 3,400-3,599  | 9     | -      | 1         | -          | 8        |
| 3,600-3,799  | 5     | 3      | -         | -          | 2        |
| 3,800-3,999  | 8     | 2      | -         | -          | 6        |
| 4,000-4,199  | 4     | 1      | -         | -          | 3        |
| 4,200-4,399  | 7     | 4      | -         | -          | 3        |
| 4,400-4,599  | 1     | -      | -         | -          | 1        |
| 4,600-4,799  | 3     | 2      | -         | -          | 1        |
| 4,800-4,999  | 1     | 1      | -         | -          | -        |
| 5,000 & Over | 3     | 2      | _         | -          | 1        |

\* Includes Rule of 85, Rule of 88, and Rule of 90.

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# TABLE 13-A

# Current Plan Pensions in Force on July 1, 2004 by Type of Pension and Nearest Age

|             |       |        | Type of F | ension     |          |
|-------------|-------|--------|-----------|------------|----------|
| Nearest Age | Total | Normal | Early     | Disability | Service* |
| Total       | 2,279 | 797    | 554       | 145        | 783      |
| Under 50    | 20    | -      | _         | 20         | -        |
| 50-54       | 36    | -      | -         | 20         | 16       |
| 55-59       | 107   | 1      | 9         | 28         | 69       |
| 60-64       | 285   | -      | 78        | 24         | 183      |
| 65-69       | 487   | 100    | 125       | 22         | 240      |
| 70-74       | 496   | 186    | 131       | 19         | 160      |
| 75-79       | 393   | 200    | 109       | 5          | 79       |
| 80-84       | 274   | 172    | 60        | 6          | 36       |
| 85-89       | 139   | 98     | 40        | 1          | -        |
| 90 & Over   | 42    | 40     | 2         | -          | -        |

# (Males - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 13-B

# Current Plan Pensions in Force on July 1, 2004 by Type of Pension and Nearest Age

|             | Type of Pension |        |       |            |          |  |
|-------------|-----------------|--------|-------|------------|----------|--|
| Nearest Age | Total           | Normal | Early | Disability | Service* |  |
| Total       | 2,801           | 951    | 1,134 | 174        | 542      |  |
| Under 50    | 32              | -      | -     | 32         | -        |  |
| 50-54       | 34              | -      | -     | 21         | 13       |  |
| 55-59       | 113             | -      | 39    | 33         | 41       |  |
| 60-64       | 338             | -      | 148   | 30         | 160      |  |
| 65-69       | 688             | 142    | 321   | 30         | 195      |  |
| 70-74       | 569             | 209    | 260   | 18         | 82       |  |
| 75-79       | 473             | 226    | 208   | 3          | 36       |  |
| 80-84       | 303             | 179    | 102   | 7          | 15       |  |
| 85-89       | 193             | 144    | 49    | -          | -        |  |
| 90 & Over   | 58              | 51     | 7     | -          | -        |  |

# (Females - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 13-C

# Current Plan Pensions in Force on July 1, 2004 by Type of Pension and Nearest Age

|             |       |        | Type of F | ension     |          |
|-------------|-------|--------|-----------|------------|----------|
| Nearest Age | Total | Normal | Early     | Disability | Service* |
| Total       | 5,080 | 1,748  | 1,688     | 319        | 1,325    |
| Under 50    | 52    | -      | _         | 52         | -        |
| 50-54       | 70    | -      | -         | 41         | 29       |
| 55-59       | 220   | 1      | 48        | 61         | 110      |
| 60-64       | 623   | -      | 226       | 54         | 343      |
| 65-69       | 1,175 | 242    | 446       | 52         | 435      |
| 70-74       | 1,065 | 395    | 391       | 37         | 242      |
| 75-79       | 866   | 426    | 317       | 8          | 115      |
| 80-84       | 577   | 351    | 162       | 13         | 51       |
| 85-89       | 332   | 242    | 89        | 1          | -        |
| 90 & Over   | 100   | 91     | 9         | -          |          |

# (All Members - Main System, Judges, National Guard, and Law Enforcement)

# TABLE 14-A

# Special Prior Service Pensions in Force on July 1, 2004 by Monthly Amount

# (Males)

| Monthly    |       |
|------------|-------|
| Amount     | Total |
| Total      | 19    |
| Under \$20 | 2     |
| 20-39      | 5     |
| 40-59      | 1     |
| 60-79      | 4     |
| 80-99      | 4     |
| 100-119    | 2     |
| 120-139    | 1     |
| 140-159    | -     |
| 160 & Over | -     |

# TABLE 14-B

# Special Prior Service Pensions in Force on July 1, 2004 by Monthly Amount

| Monthly    |       |
|------------|-------|
| Amount     | Total |
| Total      | 55    |
| Under \$20 | 9     |
| 20-39      | 18    |
| 40-59      | 12    |
| 60-79      | 8     |
| 80-99      | 4     |
| 100-119    | 1     |
| 120-139    | 1     |
| 140-159    | 1     |
| 160 & Over | 1     |

# (Females)

# TABLE 14-C

# Special Prior Service Pensions in Force on July 1, 2004 by Monthly Amount

| Monthly    |       |
|------------|-------|
| Amount     | Total |
| Total      | 74    |
| Under \$20 | 11    |
| 20-39      | 23    |
| 40-59      | 13    |
| 60-79      | 12    |
| 80-99      | 8     |
| 100-119    | 3     |
| 120-139    | 2     |
| 140-159    | 1     |
| 160 & Over | 1     |

# (All Members)

# TABLE 15-A

# Special Prior Service Pensions in Force on July 1, 2004 by Nearest Age

# (Males)

| Nearest Age | Total |
|-------------|-------|
| Total       | 19    |
| 85-89       | 3     |
| 90-94       | 9     |
| 95-99       | 6     |
| 100 & Over  | 1     |

# TABLE 15-B

# Special Prior Service Pensions in Force on July 1, 2004 by Nearest Age

# (Females)

| Nearest Age | Total |
|-------------|-------|
| Total       | 55    |
| 85-89       | 4     |
| 90-94       | 35    |
| 95-99       | 14    |
| 100 & Over  | 2     |

# TABLE 15-C

# Special Prior Service Pensions in Force on July 1, 2004 by Nearest Age

# (All Members)

| Nearest Age | Total |
|-------------|-------|
| Total       | 74    |
| 85-89       | 7     |
| 90-94       | 44    |
| 95-99       | 20    |
| 100 & Over  | 3     |