North Dakota Public Employees Retirement System
Retiree Health Insurance Credit Fund
North Dakota Highway Patrolmen's Retirement System
Retirement Plan for Employees of Job Service North Dakota

Actuarial Valuation Reports as of July 1, 2007

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

Actuarial Valuation Report as of July 1, 2007

SEGAL

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October 11, 2007

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, 2007.

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; and

- Prepared in accordance with standards of practice prescribed by the Actuarial Standards Board.

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.

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

Mike Moehle

Michael Moehle FSA, MAAA, EA
Vice President and Consulting Actuary

Theodore J. Shively

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I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2007. 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, 2007;

3. The assets of the System as of June 30, 2007; 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 2007-2008, based upon the actuarial assumptions and financing objectives approved by the Board. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

- 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.

- The employer actuarial contribution requirements for 2007-2008 are as follows:

	Amount	Percentage of Payroll	Statutory/ Approved Rate
Main System	$34,705,106	6.08%	4.12%
Judges	453,905	9.31	14.52
National Guard	52,219	3.53	6.50
Law Enforcement with prior Main service	603,590	12.39	8.31
Law Enforcement without prior Main service	60,298	8.50	6.43

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

	2007-2008	2006-2007
Main System	6.08%	6.90%
Judges	9.31	12.36
National Guard	3.53	4.02
Law Enforcement with prior Main service	12.39	12.07
Law Enforcement without prior Main service	8.50	7.43

- The Main System statutory rate of 4.12% of payroll is less than the actuarially determined rate of 6.08% of payroll by 1.96% of payroll. Last year, the Main System statutory rate was less than the actuarially determined rate by 2.78% of payroll. The decrease in the contribution rate deficit this year was primarily attributable to investment gains.

- The return on the market value of assets for 2006-2007 for the PERS Fund was 19.63%, and was 12.04% for the preceding year.

- The return on the actuarial value of assets for 2006-2007 for the PERS Fund was 15.84% compared to the investment return assumption of 8.00%. As a result, the PERS Fund experienced an investment gain on an actuarial value basis of approximately $102.2 million.

- The ratio of the actuarial value of assets to the market value of assets for the PERS Fund is 80.0%. Last year, this ratio was 82.8%.

- A comparison of this year's funded ratio for PERS to the prior year is as follows:

	July 1, 2007	July 1, 2006
Actuarial Value of Assets	$1,503,139,894	$1,314,542,905
Actuarial Accrued Liability	1,610,168,634	1,480,456,701
Funded Ratio	93.4%	88.8%

- 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.

- There were no changes to the actuarial assumptions since the preceding valuation.

III. MEMBER CHARACTERISTICS

Detailed information for all non-retired members as of July 1, 2007 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, 2007 is summarized below:

	Main System	Judges	National Guard	Law Enforcement with prior Main service	Law Enforcement without prior Main service	Total
Number of active members	18,299	47	40	138	28	18,552
Average age	47.0	55.0	34.1	41.6	36.7	46.9
Average years of service	10.6	15.2	3.8	9.2	2.5	10.6
Total annual salary	$570,355,040	$4,873,080	$1,479,300	$4,870,238	$709,167	$582,286,825
Average annual salary	$31,169	$103,683	36,983	$35,292	$25,327	$31,387
Total accumulated member contribution account balances	$426,300,763	$4,047,007	$352,670	$3,636,263	$109,536	$434,446,239

For the Main System, the number of active members represents an increase of 2.3% over the 17,887 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 5.6%. Total payroll increased 6.3%, which was more 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 20 members originally from the Main System that continue to be active members in the Judges System; 23 members from the Judges System are active in the Main System; 11 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.

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

Active Members Eligible for:	Main System	Judges	National Guard	Law Enforcement with prior Main service	Law Enforcement without prior Main service	Total
Retirement:						
Normal	642	3	2	22	0	669
Rule of 85	821	7	N/A	0	0	828
Early Retirement	3,111	14	0	20	0	3,145
Total Retirement	4,574	24	2	42	0	4,642
Deferred Retirement	9,131	12	7	53	8	9,211
Total vested	13,705	36	9	95	8	13,853
Nonvested	4,594	11	31	43	20	4,699
Total	18,299	47	40	138	28	18,552

Inactive Members

There were 3,003 inactive members (including 3 from Judges, 2 from National Guard, 5 from Law Enforcement with prior Main service, and 2 from Law Enforcement without prior Main Service) as of July 1, 2007 with vested rights to deferred retirement benefits. The average deferred monthly benefit for this group was $355. There were also 22 members from the Main System and one member from National Guard on leave of absence. For these groups, a liability is carried for their deferred retirement benefits.

IV. BENEFIT EXPERIENCE

New Awards

During the fiscal year ended in June 2007, 474 pensions became effective. The average monthly benefit for these pensioners was $1,078 and their average age at retirement was 62.2. Last year, the average benefit among new pensioners was $1,054. 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:

	July 1, 2007	July 1, 2006
Normal	141	121
Rule of 85	190	166
Early	118	121
Disability	25	21
Total	474	429

Pensioners

Since benefits became payable under the current retirement program, a total of 8,024 retirement pensions have been awarded, of which 5,862 remained on the June 2007 rolls (including 24 retired Judges and 15 retired members of the National Guard/Law Enforcement). In addition, 44 pensions were in suspended status as of June 30, 2007. 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, 2007, the average monthly benefit was $833, an increase from $807 a year earlier. The average age of these pensioners on the valuation date was 72.0 years.

Beneficiaries

As of July 1, 2007, monthly benefit payments were being made to 651 beneficiaries, including six beneficiaries of Judges. The monthly payments to beneficiaries in payment status total $344,072.

Prior Service Pensioners

As of July 1, 2007, there were 37 pensioners receiving monthly benefits of $1,687 under the Special Prior Service Pension provisions of the System. The current average age of Prior Service pensioners was 95.6 years, and the average monthly benefit was $46. Because of the relatively high average age and low benefits, the liability for the Special Prior Service Pensioners represented less than 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.

V. ASSETS

Market Value of Assets

As shown in the draft financial statements as of June 30, 2007, the combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen's Retirement System (HPRS) was $1,939,134,759 compared to $1,638,868,514 a year earlier. This year's combined market value represents an increase of 18.32% 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:

	July 1, 2007	July 1, 2006
Main System	$1,837,958,873	$1,553,353,995
Judges	33,487,664	28,113,536
National Guard	2,360,277	1,912,469
Law Enforcement with prior Main service	4,958,740	3,771,742
Law Enforcement without prior Main service	159,313	88,345
Total	$1,878,924,867	$1,587,240,087

The rate of return on the market value basis for the PERS Fund was 19.63% for the year ended June 30, 2007.

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 $1,551,307,807 as of June 30, 2007. The determination of the combined actuarial asset value is shown in Table 1. This table shows that there is approximately $412 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 $924,446,400 on an actuarial value basis represented an average annual return of 8.79%. For the 2006-2007 year, the actuarial rate of return on the combined assets was 15.84%.

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, 2007	July 1, 2006
Main System	$1,470,367,098	$1,286,478,642
Judges	26,790,131	23,283,465
National Guard	1,888,222	1,583,896
Law Enforcement with prior Main service	3,966,992	3,123,735
Law Enforcement without prior Main service	127,450	73,167
Total	$1,503,139,893	$1,314,542,905

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 2007 and 2006 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

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

Year Ending June 30	Market Value	Actuarial Value
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
2005	14.17	4.36
2006	12.04	7.79
2007	19.63	15.84

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.

TABLE 1

Determination of Actuarial Value of Assets (for PERS and HPRS) as of June 30, 2007 and 2006

		Of Total Appreciation			
		June 30, 2007		June 30, 2006	
Year Ending	Total Appreciation (Depreciation)	Percent Deferred	Amount Deferred	Percent Deferred	Amount Deferred
June 30, 2003	22,232,141	0%	$0	20%	$4,446,428
June 30, 2004	156,289,529	20%	31,257,906	40%	62,515,812
June 30, 2005	154,870,262	40%	61,948,105	60%	92,922,157
June 30, 2006	152,103,565	60%	91,262,139	80%	121,682,852
June 30, 2007	285,031,438	80%	228,025,150	N/A	0
(a) Total Deferred as of Valuation Date			$412,493,300		$281,567,249
(b) Total Appreciation (Depreciation) for last five Plan Years			770,526,935		369,554,515
(c) Write-Up/(Down) Amount for the year - equals 20% of (b)			154,105,387		73,910,903

	July 1, 2007	July 1, 2006
Market Value of Assets	$1,939,134,759	$1,638,868,514
Less: Deferred Appreciation (Depreciation)	412,493,300	281,567,249
Preliminary Actuarial Value of Assets	1,526,641,459	1,357,301,265
Additional write-up/(down) due to corridor	24,666,348	0
Actuarial Value of Assets	$1,551,307,807	$1,357,301,265
Actuarial Value as a Percent of Market Value	80.00%	82.82%

TABLE 2

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

Year Ended June 30	Net Interest and Dividend Income* Amount	Yield	Other Income** Amount	Yield	Total Net Investment Income Amount	Yield
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
2005	29,115,600	2.38	24,276,800	1.98	53,392,400	4.36
2006	24,410,600	1.93	73,910,900	5.85	98,321,500	7.79
2007	34,727,000	2.58	178,771,700	13.26	213,498,700	15.84
Total for Last Ten Years	$326,556,100		$597,090,300		$924,446,400	
Average Yield for last Ten Years					8.79%	

* Net of investment expenses.
** Includes write-up (down).

TABLE 3

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

	July 1, 2007		July 1, 2006	
	Market Value	Actuarial Value	Market Value	Actuarial Value
PERS Main System	$1,837,958,873	$1,470,367,098	$1,553,353,995	$1,286,478,642
PERS Judges	33,487,664	26,790,131	28,113,536	23,283,465
PERS National Guard	2,360,277	1,888,222	1,912,469	1,583,896
PERS Law Enforcement with prior Main service	4,958,740	3,966,992	3,771,742	3,123,735
PERS Law Enforcement without prior Main service	159,313	127,450	88,345	73,167
PERS Combined	$1,878,924,867	$1,503,139,893	$1,587,240,087	$1,314,542,905
Highway Patrol	60,209,892	48,167,914	51,628,427	42,758,360
Total	$1,939,134,759	$1,551,307,807	$1,638,868,514	$1,357,301,265

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

Chart 1

Value of Assets for PERS

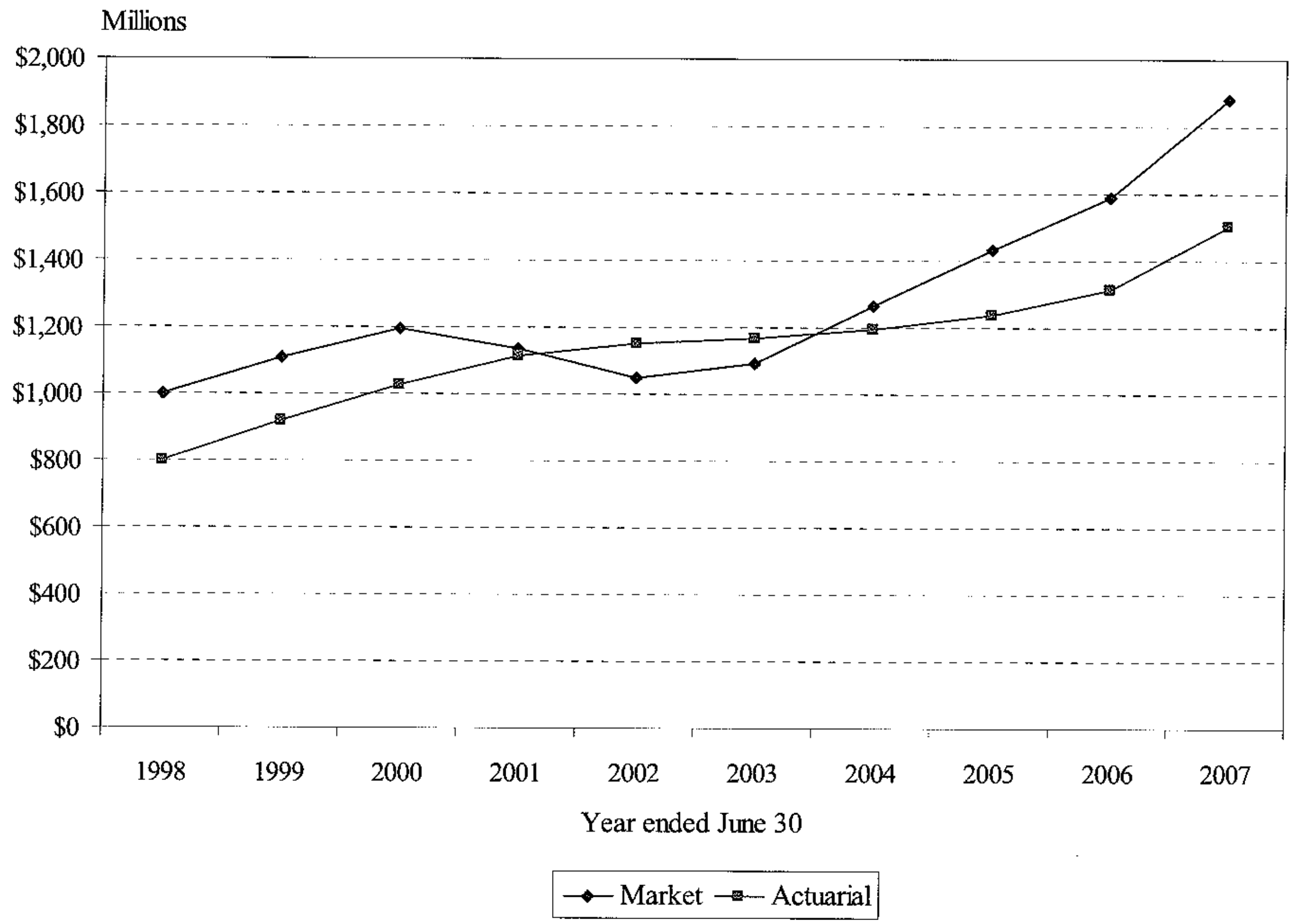


TABLE 4

Summary Statement of Income and Disbursements for PERS for the Years Ended June 30, 2007 and 2006 (Actuarial Value Basis)

	June 30, 2007	June 30, 2006
Contribution Income:		
Employer Contributions	$23,140,767	$21,969,517
Member Contributions	21,883,581	20,805,715
Service Credit Repurchases	3,679,036	3,702,908
Total Contribution Income	$48,703,384	$46,478,140
Less: Administrative Expenses	(1,109,260)	(1,037,535)
Net Contribution Income	$47,594,124	$45,440,605
Investment Income:		
Interest and Dividends	$50,474,706	$40,972,928
Miscellaneous Income	4,759	11,217
Less: Investment Expenses	(16,841,198)	(17,349,505)
Net Interest and Dividends	$33,638,267	$23,634,640
Write-up of Assets	173,005,655	71,451,351
Net Investment Income	$206,643,922	$95,085,991
Total Income Available for Benefit Payments and Reserves	$254,238,046	$140,526,596
Benefit Payments:		
Pension Benefits	$(60,469,904)	$(57,820,126)
Transfers to Other Plans	(39,829)	(41,271)
Refunds	(5,131,324)	(4,236,429)
Total Benefit Payments	$(65,641,057)	$(62,097,826)
Addition to Reserve for Future Benefit Payments	$188,596,989	$78,428,770
Actuarial Value of Assets, Start of Year	1,314,542,905	1,236,114,135
Actuarial Value of Assets, End of Year	$1,503,139,894	$1,314,542,905

TABLE 5

Progress of the PERS Fund through June 30, 2007
(Actuarial Value Basis)

Year Ended June 30	Employer Contributions	Member Contributions*	Administrative Expenses	Net Investment Income	Benefit Payments	Fund at End Of Year
1997	-	-	-	-	-	$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
2005	20,704,241	24,097,496	1,072,277	51,592,706	55,741,113	1,236,114,135
2006	21,969,517	24,508,623	1,037,535	95,085,991	62,097,826	1,314,542,905
2007	23,140,767	25,562,617	1,109,260	206,643,922	65,641,057	1,503,139,894
Total for Last Ten Years	$191,364,325	$199,705,312	$9,286,046	$893,711,604	$476,831,145	

* Includes repurchases of service credit.

Chart 2
Income and Disbursements for PERS

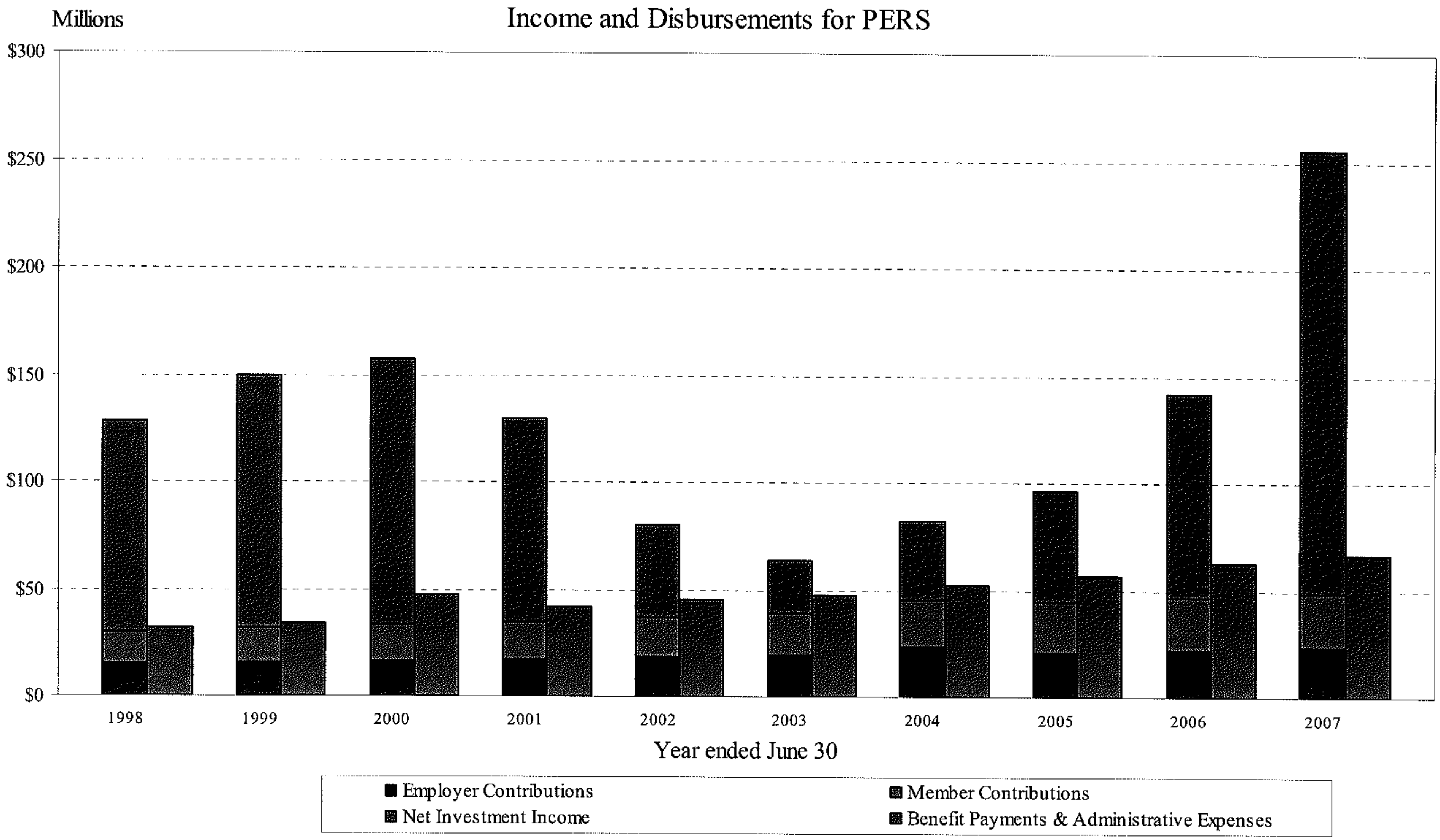
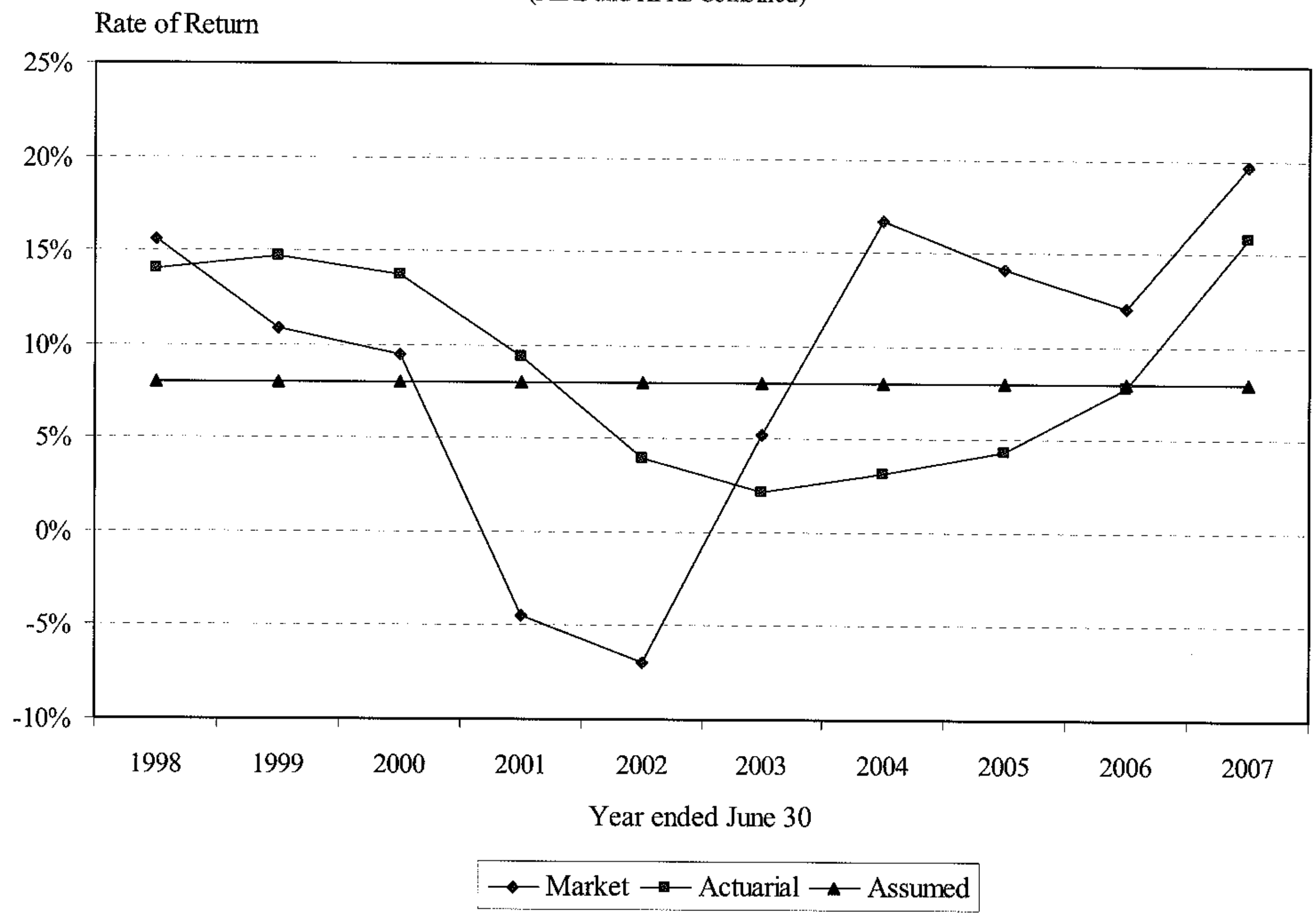


Chart 3
Investment Returns
(PERS and HPRS Combined)



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 2007-2008 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 2007 – 2008	Percentage of Payroll
Total normal cost	$49,460,425	8.67%
Less: Member contributions	(22,814,202)	(4.00)
Net employer normal cost	$26,646,223	4.67%
Administrative expense allowance	710,000	0.12
Amortization payment (credit)	7,348,883	1.29
Total employer contribution requirement	$34,705,106	6.08%

Covered payroll is $570,355,040.

The statutory contribution rate is 4.12% of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by 1.96% of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

The total employer actuarial contribution requirement was 6.90% of payroll last year. Since then, actual experience of the System during 2006-2007 has changed the actuarial contribution requirement. Table 6 presents a detailed explanation of the factors that changed the contribution requirement from July 1, 2006 to July 1, 2007.

Judges

The components of the actuarial contribution requirement are shown below:

	Amount for 2007 – 2008	Percentage of Payroll
Total normal cost	$959,032	19.68%
Less: Member contributions	(243,654)	(5.00)
Net employer normal cost	$715,378	14.68%
Administrative expense allowance	5,000	0.10
Amortization payment (credit)	(266,473)	(5.47)
Total employer contribution requirement	$453,905	9.31%

Covered payroll is $4,873,080.

The statutory contribution rate is 14.52% of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by 5.21% of payroll.

The net employer normal cost plus the administrative expense allowance is 14.78% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 9.31% of payroll reflects an amortization credit. By this measure, statutory contributions are less than the ultimate plan cost rate of 14.78% of payroll by 0.26% 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, 2006	12.36%
Plan experience during the year	(3.14)
Effect of maintaining 20-year amortization schedule	0.09
Employer cost rate as of July 1, 2007	9.31%

National Guard

The components of the actuarial contribution requirement are shown below:

	Amount for 2007 – 2008	Percentage of Payroll
Total normal cost	$121,039	8.18%
Less: Member contributions	(59,172)	(4.00)
Net employer normal cost	$61,867	4.18%
Administrative expense allowance	1,097	0.07
Amortization payment (credit)	(10,745)	(0.72)
Total employer contribution requirement	$52,219	3.53%

Covered payroll is $1,479,300.

The statutory contribution rate is 6.50% of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by 2.97% of payroll.

The net employer normal cost plus the administrative expense allowance is 4.25% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 3.53% of payroll reflects an amortization credit. By this measure, statutory contributions are greater than the ultimate plan cost rate of 4.25% of payroll by 2.25% 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, 2006	4.02%
Plan experience during the year	(0.50)
Effect of maintaining 20-year amortization schedule	0.01
Employer cost rate as of July 1, 2007	3.53%

Law Enforcement with prior Main service

The components of the actuarial contribution requirement are shown below:

	Amount for 2007 – 2008	Percentage of Payroll
Total normal cost	$424,407	8.71%
Less: Member contributions	(194,810)	(4.00)
Net employer normal cost	$229,597	4.71%
Administrative expense allowance	3,270	0.07
Amortization payment (credit)	370,722	7.61
Total employer contribution requirement	$603,589	12.39%

Covered payroll is $4,870,238.

The statutory contribution rate is 8.31% of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by 4.08% of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

The net employer normal cost plus the administrative expense allowance is 4.78% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 12.39% of payroll reflects an amortization charge. By this measure, statutory contributions are greater than the ultimate plan cost rate of 4.78% of payroll by 3.53% 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, 2006	12.07%
Plan experience during the year	0.61
Effect of maintaining 20-year amortization schedule	(0.29)
Employer cost rate as of July 1, 2007	12.39%

Law Enforcement without prior Main service

The components of the actuarial contribution requirement are shown below:

	Amount for 2007 – 2008	Percentage of Payroll
Total normal cost	$71,295	10.05%
Less: Member contributions	(28,367)	(4.00)
Net employer normal cost	$42,928	6.05%
Administrative expense allowance	633	0.09
Amortization payment (credit)	16,737	2.36
Total employer contribution requirement	$60,298	8.50%

Covered payroll is $709,167.

The statutory contribution rate is 6.43% of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by 2.07% of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

The net employer normal cost plus the administrative expense allowance is 6.14% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 8.50% of payroll reflects an amortization charge. By this measure, statutory contributions are greater than the ultimate plan cost rate of 6.14% of payroll by 0.29% 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, 2006	7.43%
Plan experience during the year	1.12
Effect of maintaining 20-year amortization schedule	(0.05)
Employer cost rate as of July 1, 2007	8.50%

Main System, Judges, National Guard and Law Enforcement Combined

The components of the actuarial contribution requirement are shown below.

	Amount for 2007 – 2008	Percentage of Payroll
Total normal cost	$51,036,198	8.77%
Less: Member contributions	(23,340,204)	(4.01)
Net employer normal cost	$27,695,994	4.76%
Administrative expense allowance	720,000	0.12
Amortization payment (credit)	7,459,123	1.28
Total employer contribution requirement	$35,875,117	6.16%

Covered payroll is $582,286,825.

TABLE 6

Main System
Explanation of Change in Employer Cost Rate

	Percent of Payroll
Employer Cost Rate as of July 1, 2006	**6.90%**
Retired Life Mortality	(0.10)%
The release of liability due to deaths among retirees and beneficiaries was greater than expected, decreasing the employer cost rate.	
Investments	(1.27)%
On an actuarial value basis, the rate of return on assets was greater than the assumed rate of return, decreasing the employer cost rate.	
Salary Scale	0.03%
Salaries increased more than expected, increasing the employer cost rate.	
Contributions	0.15%
Actual contributions received by the System were less than the actuarially determined amount, increasing the required contributions in future years.	
Administrative Expenses	(0.01)%
This is a slight loss due to expenses higher than expected.	
New and Reinstated Members	(0.08)%
The addition of new and reinstated members decreases the employer cost rate.	
Change in Size and Composition of Active Membership and Miscellaneous Experience	0.51%
The demographic characteristics of the active membership changed during the year, increasing the employer cost rate.	
Funding Schedule	(0.05)%
The effect of maintaining a 20-year funding schedule results in a small decrease in cost.	
Employer Cost Rate as of July 1, 2007	**6.08%**

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. The ratio has improved this year due to a large investment gain, and could continue to improve as unrecognized investment gains are due to be recognized in the coming years. If all unrecognized gains were recognized immediately, the funded ratio would be 116.7%.

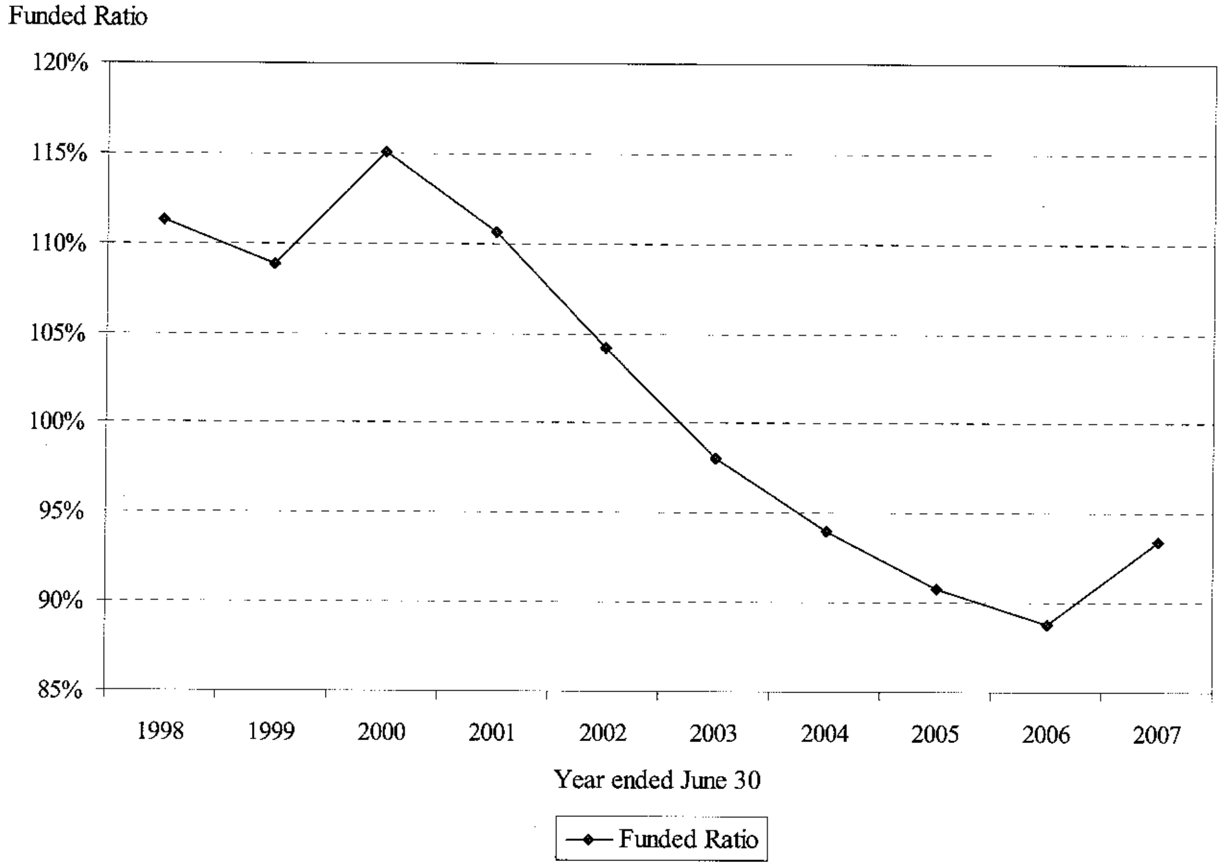
Funded ratios change over time due to several factors. These factors include the level of contributions, actual experience (including investment returns), plan amendments and changes in assumptions. In particular, we observe that in 1995, 1999 and 2001 benefit improvements were effective, decreasing the funded ratio from what it would have been otherwise. Also, the actuarial assumptions were changed in 1995, 2000 and 2006, changing the funded ratio from what it would have been otherwise.

TABLE 7

Funded Ratio for PERS

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
1998	$720,093,400	$801,290,400	111.3%
1999	842,717,700	916,953,300	108.8
2000	891,889,000	1,027,001,800	115.1
2001	1,008,722,500	1,115,334,400	110.6
2002	1,103,460,900	1,150,000,800	104.2
2003	1,188,830,500	1,166,452,100	98.1
2004	1,272,857,600	1,196,533,100	94.0
2005	1,361,182,100	1,236,114,100	90.8
2006	1,480,456,700	1,314,542,900	88.8
2007	1,609,168,600	1,503,137,900	93.4

Chart 4
Funded Ratio (PERS)



VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

The actuarial assumptions and cost methods used in the actuarial valuation as of July 1, 2007 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:

Age	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 with males set back one year 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 Members			
	Males		Females	
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	5.7	25.2	2.5	30.3
60	8.4	21.0	4.2	25.7
65	13.9	17.0	7.1	21.3
70	24.8	13.3	12.4	17.2
75	40.4	10.2	24.0	13.4
80	67.1	7.6	42.9	10.2
85	106.0	5.6	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.

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

	Years of Service				
Age	1	2	3	4	5
29 & Under	18%	15%	12%	10%	15%
30 - 39	12	12	11	10	11
40 & Over	10	10	8	7	6

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

Age	Male	Female
20 - 24	12.0%	12.0%
25 - 29	8.0	10.0
30 - 34	5.0	8.0
35 - 39	3.5	5.0
40 - 44	3.0	4.0
45 - 49	2.5	3.5
50 & Over	2.0	3.0

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

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

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

Age	Male	Female
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:

Age	Male	Female
20 - 24	6.0%	6.0%
25 - 29	4.0	5.0
30 - 34	2.5	4.0
35 - 39	2.0	3.0
40 - 44	1.5	2.5
45 - 49	1.5	2.0
50 & Over	1.0	1.5

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	Rule of 85 Eligible Rate	All Other Retirements
55	4%	4%
56	6	4
57	6	4
58	6	4
59	6	4
60	8	6
61	15	12
62	35	25
63	25	20
64	25	20
65	40	30
66	20	20
67	20	20
68	20	20
69	20	20
70	100	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.

October 11, 2007

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, 2007 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.

Mike Moehle

Michael Moehle FSA, MAAA, EA
Vice President and Consulting Actuary

Theodore J. Shively

Theodore J. Shively, ASA, MAAA, EA
Vice President and Actuary

Kurt Schneider

Kurt Schneider, ASA, MAAA, EA
Associate Actuary

EXHIBIT I-A

ACTUARIAL VALUATION RESULTS

MAIN SYSTEM

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$976,921,670	
	b. Special prior service pensions	54,941	
	c. Retired members and beneficiaries	531,444,838	
	d. Inactive non-retired members	67,245,179	
	e. Total		$1,575,666,628
2.	Assets at actuarial value ($1,837,958,873 at market value)		1,470,367,098
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		105,299,530
4.	Member and employer normal cost for ensuing year*		49,460,425
5.	Estimated annual salaries of covered members		570,355,040
6.	Member normal cost - equals 4% of (5)		22,814,202
7.	Employer normal cost for ensuing year - equals (4) minus (6)		26,646,223
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		7,348,883
9.	Administrative expenses		710,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		34,705,106
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		6.08%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-B

ACTUARIAL VALUATION RESULTS

JUDGES

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$12,995,493	
	b. Retired members and beneficiaries	9,892,709	
	c. Inactive non-retired members	233,346	
	d. Total		$23,121,548
2.	Assets at actuarial value ($33,487,664 at market value)		26,790,131
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		(3,668,583)
4.	Member and employer normal cost for ensuing year*		959,032
5.	Estimated annual salaries of covered members		4,873,080
6.	Member normal cost - equals 5% of (5)		243,654
7.	Employer normal cost for ensuing year - equals (4) minus (6)		715,378
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		(266,473)
9.	Administrative expenses		5,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		453,905
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		9.31%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-C

ACTUARIAL VALUATION RESULTS

NATIONAL GUARD

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$972,752	
	b. Retired members and beneficiaries	660,846	
	c. Inactive non-retired members	100,661	
	d. Total		$1,734,259
2.	Assets at actuarial value ($2,360,277 at market value)		1,888,222
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		(153,963)
4.	Member and employer normal cost for ensuing year*		121,039
5.	Estimated annual salaries of covered members		1,479,300
6.	Member normal cost - equals 4% of (5)		59,172
7.	Employer normal cost for ensuing year - equals (4) minus (6)		61,867
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		(10,745)
9.	Administrative expenses		1,097
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		52,219
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		3.53%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-D

ACTUARIAL VALUATION RESULTS

LAW ENFORCEMENT WITH PRIOR MAIN SERVICE

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$7,696,606	
	b. Retired members and beneficiaries	1,486,181	
	c. Inactive non-retired members	96,149	
	d. Total		$9,278,936
2.	Assets at actuarial value ($4,958,740 at market value)		3,966,992
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		5,311,944
4.	Member and employer normal cost for ensuing year*		424,407
5.	Estimated annual salaries of covered members		4,870,238
6.	Member normal cost - equals 4% of (5)		194,810
7.	Employer normal cost for ensuing year - equals (4) minus (6)		229,597
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		370,722
9.	Administrative expenses		3,270
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		603,589
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		12.39%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-E

ACTUARIAL VALUATION RESULTS

LAW ENFORCEMENT WITHOUT PRIOR MAIN SERVICE

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$262,693	
	b. Retired members and beneficiaries	0	
	c. Inactive non-retired members	104,570	
	d. Total		$367,263
2.	Assets at actuarial value ($159,313 at market value)		127,450
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		239,813
4.	Member and employer normal cost for ensuing year*		71,295
5.	Estimated annual salaries of covered members		709,167
6.	Member normal cost - equals 4% of (5)		28,367
7.	Employer normal cost for ensuing year - equals (4) minus (6)		42,928
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		16,737
9.	Administrative expenses		633
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		60,298
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		8.50%

* 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

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$998,849,214	
	b. Special prior service pensions	54,941	
	c. Retired members and beneficiaries	543,484,574	
	d. Inactive non-retired members	67,779,905	
	e. Total		$1,610,168,634
2.	Assets at actuarial value ($1,878,924,867 at market value)		1,503,139,894
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		107,028,741
4.	Member and employer normal cost for ensuing year*		51,036,198
5.	Estimated annual salaries of covered members		582,286,825
6.	Member normal cost		23,340,204
7.	Employer normal cost for ensuing year - equals (4) minus (6)		27,695,994
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		7,459,123
9.	Administrative expenses		720,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		35,875,117
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		6.16%

* 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, set back one year for males (not set back for females).

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

2. Disability Incidence Rates:

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

Sample rates are as follows:

Age	Male	Female
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:

First five years of service:

	Years of Service				
Age	1	2	3	4	5
29 & Under	18%	15%	12%	10%	15%
30 - 39	12	12	11	10	11
40 & Over	10	10	8	7	6

EXHIBIT II (continued)

Ultimate withdrawal rates after five years service:

Age	Male	Female
20 - 24	12.0%	12.0%
25 - 29	8.0	10.0
30 - 34	5.0	8.0
35 - 39	3.5	5.0
40 - 44	3.0	4.0
45 - 49	2.5	3.5
50 & Over	2.0	3.0

National Guard and Law Enforcement:

First five years of service:

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

Ultimate withdrawal rates after five years service:

Age	Male	Female
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

Judges:

Age	Male	Female
20 - 24	6.0%	6.0%
25 - 29	4.0	5.0
30 - 34	2.5	4.0
35 - 39	2.0	3.0
40 - 44	1.5	2.5
45 - 49	1.5	2.0
50 & Over	1.0	1.5

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.

EXHIBIT II (continued)

4. Retirement Rates for Active Members:

Main System:

Age	Rule of 85 Eligible Rate	All Other Retirements
55	4%	4%
56	6	4
57	6	4
58	6	4
59	6	4
60	8	6
61	15	12
62	35	25
63	25	20
64	25	20
65	40	30
66	20	20
67	20	20
68	20	20
69	20	20
70	100	100

Judges:

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:

Age	Rate
60	100%

EXHIBIT II (continued)

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:

Main System:	$ 710,000.
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.

EXHIBIT II (continued)

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. For the Main system, males are assumed to be four years older than their female spouses. For all other systems, 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: 3.5% per annum

Wage Base Increases: 5.0% per annum

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

None assumed.

EXHIBIT II (continued)

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, National Guard and Law Enforcement.
	If elected:	100% of active members of the Main System, 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 since the preceding valuation.

EXHIBIT IV

CHANGES IN PLAN PROVISIONS

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

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.

EXHIBIT V (continued)

4. **Deferred Vested Retirement:**

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 240 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).
- A partial lump sum payment in addition to the one of the annuity options above.

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.

EXHIBIT V (continued)

7. Accumulated Member Contributions:

Member contributions accumulate with interest at the following rates:

Time Period	Per Annum Interest Rate
Through June 30, 1981	5.0%
July 1, 1981 to June 30, 1986	6.0%
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.

EXHIBIT V (continued)

10. Contributions:

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 Employees	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. Rollovers:

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

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

TABLE 8-A

Census of Members in Active Service on July 1, 2007
by Nearest Age and Years of Employment in PERS

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

		Years of Employment							
Nearest Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	7,202	2,467	1,512	873	832	632	536	242	108
Under 20	5	5	-	-	-	-	-	-	-
20-24	190	188	2	-	-	-	-	-	-
25-29	512	438	73	1	-	-	-	-	-
30-34	553	304	212	37	-	-	-	-	-
35-39	674	288	202	140	43	1	-	-	-
40-44	810	281	185	139	164	40	1	-	-
45-49	1,070	289	218	148	160	150	101	4	-
50-54	1,231	263	218	151	161	174	187	74	3
55-59	1,165	210	187	125	163	156	176	104	44
60-64	688	125	133	84	98	88	59	51	50
65-69	205	43	58	34	34	15	8	6	7
70-74	66	21	15	9	7	6	3	2	3
75 & Over	33	12	9	5	2	2	1	1	1

TABLE 8-B

Census of Members in Active Service on July 1, 2007
by Nearest Age and Years of Employment in PERS

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

		Years of Employment							
Nearest Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	11,350	4,251	2,583	1,420	1,260	892	592	271	81
Under 20	6	6	-	-	-	-	-	-	-
20-24	261	261	-	-	-	-	-	-	-
25-29	711	638	73	-	-	-	-	-	-
30-34	817	493	285	37	2	-	-	-	-
35-39	1,049	545	297	155	51	1	-	-	-
40-44	1,407	601	357	184	164	99	2	-	-
45-49	2,083	627	538	285	256	219	146	12	-
50-54	2,143	517	473	327	305	184	191	141	5
55-59	1,653	342	339	253	267	207	139	70	36
60-64	881	154	139	123	166	146	88	38	27
65-69	238	38	60	40	38	26	22	6	8
70-74	73	21	15	13	10	4	2	4	4
75 & Over	28	8	7	3	1	6	2	-	1

TABLE 8-C

Census of Members in Active Service on July 1, 2007
by Nearest Age and Years of Employment in PERS

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

		Years of Employment							
Nearest Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	18,552	6,718	4,095	2,293	2,092	1,524	1,128	513	189
Under 20	11	11	-	-	-	-	-	-	-
20-24	451	449	2	-	-	-	-	-	-
25-29	1,223	1,076	146	1	-	-	-	-	-
30-34	1,370	797	497	74	2	-	-	-	-
35-39	1,723	833	499	295	94	2	-	-	-
40-44	2,217	882	542	323	328	139	3	-	-
45-49	3,153	916	756	433	416	369	247	16	-
50-54	3,374	780	691	478	466	358	378	215	8
55-59	2,818	552	526	378	430	363	315	174	80
60-64	1,569	279	272	207	264	234	147	89	77
65-69	443	81	118	74	72	41	30	12	15
70-74	139	42	30	22	17	10	5	6	7
75 & Over	61	20	16	8	3	8	3	1	2

TABLE 9-A

Census of Members in Active Service on July 1, 2007
by Nearest Age and Salary

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

		Salary									
Nearest Age	Total	Less than $10,000	$10,000-$14,999	$15,000-$19,999	$20,000-$24,999	$25,000-$29,999	$30,000-$34,999	$35,000-$39,999	$40,000-$44,999	$45,000-$49,999	$50,000 & Over
Total	7,202	176	250	434	900	1,360	1,242	899	602	439	900
Under 20	5	1	-	3	1	-	-	-	-	-	-
20-24	190	13	14	33	43	43	30	9	3	-	2
25-29	512	13	17	47	86	123	107	46	49	17	7
30-34	553	10	4	43	50	124	133	84	38	29	38
35-39	674	18	7	31	84	129	127	91	77	36	74
40-44	811	10	26	38	103	174	134	93	70	64	99
45-49	1,070	17	19	47	155	184	189	123	97	76	163
50-54	1,230	18	38	56	129	222	196	165	116	80	210
55-59	1,165	21	29	64	124	202	201	169	80	82	193
60-64	688	27	36	37	89	118	100	95	60	37	89
65-69	205	10	32	23	22	34	19	18	12	16	19
70-74	66	10	15	9	8	5	6	5	-	2	6
75 & Over	33	8	13	3	6	2	-	1	-	-	-

TABLE 9-B

Census of Members in Active Service on July 1, 2007
by Nearest Age and Salary

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

		Salary									
Nearest Age	Total	Less than $10,000	$10,000-$14,999	$15,000-$19,999	$20,000-$24,999	$25,000-$29,999	$30,000-$34,999	$35,000-$39,999	$40,000-$44,999	$45,000-$49,999	$50,000 & Over
Total	11,350	484	1,259	1,796	2,132	1,957	1,475	922	535	306	484
Under 20	6	4	1	1	-	-	-	-	-	-	-
20-24	261	30	47	85	53	25	15	5	-	-	1
25-29	711	49	75	122	161	139	92	44	20	8	1
30-34	817	44	72	102	137	168	123	76	47	23	25
35-39	1,049	57	125	156	157	183	148	90	70	23	40
40-44	1,407	66	183	219	244	236	175	114	66	40	64
45-49	2,083	67	247	354	373	340	256	167	105	64	110
50-54	2,143	63	217	331	399	356	286	208	106	71	106
55-59	1,653	41	143	241	359	296	225	137	70	50	91
60-64	881	22	86	131	189	165	115	68	45	24	36
65-69	238	16	44	35	42	43	32	9	6	2	9
70-74	73	16	14	13	13	5	7	4	-	-	1
75 & Over	28	9	5	6	5	1	1	-	-	1	-

TABLE 9-C

Census of Members in Active Service on July 1, 2007
by Nearest Age and Salary

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

		Salary									
Nearest Age	Total	Less than $10,000	$10,000-$14,999	$15,000-$19,999	$20,000-$24,999	$25,000-$29,999	$30,000-$34,999	$35,000-$39,999	$40,000-$44,999	$45,000-$49,999	$50,000 & Over
Total	18,552	660	1,509	2,230	3,032	3,317	2,717	1,821	1,137	745	1,384
Under 20	11	5	1	4	1	-	-	-	-	-	-
20-24	451	43	61	118	96	68	45	14	3	-	3
25-29	1,223	62	92	169	247	262	199	90	69	25	8
30-34	1,370	54	76	145	187	292	256	160	85	52	63
35-39	1,723	75	132	187	241	312	275	181	147	59	114
40-44	2,218	76	209	257	347	410	309	207	136	104	163
45-49	3,153	84	266	401	528	524	445	290	202	140	273
50-54	3,373	81	255	387	528	578	482	373	222	151	316
55-59	2,818	62	172	305	483	498	426	306	150	132	284
60-64	1,569	49	122	168	278	283	215	163	105	61	125
65-69	443	26	76	58	64	77	51	27	18	18	28
70-74	139	26	29	22	21	10	13	9	-	2	7
75 & Over	61	17	18	9	11	3	1	1	-	1	-

TABLE 10-A

Pensions Awarded During the Year Ended June 30, 2007 by Type of Pension and Monthly Amount

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

Monthly Amount	Total	Type of Pension: Normal	Early	Disability	Rule of 85
Total	207	66	43	14	84
Under $200	21	13	7	1	-
200-399	31	10	16	5	-
400-599	26	10	9	7	-
600-799	5	-	5	-	-
800-999	15	9	1	1	4
1,000-1,199	14	6	2	-	6
1,200-1,399	11	4	1	-	6
1,400-1,599	11	4	1	-	6
1,600-1,799	10	1	-	-	9
1,800-1,999	15	2	1	-	12
2,000-2,199	9	2	-	-	7
2,200-2,399	5	1	-	-	4
2,400-2,599	9	-	-	-	9
2,600-2,799	7	-	-	-	7
2,800-2,999	9	1	-	-	8
3,000-3,199	2	1	-	-	1
3,200-3,399	4	2	-	-	2
3,400-3,599	1	-	-	-	1
3,600-3,799	-	-	-	-	-
3,800-3,999	-	-	-	-	-
4,000-4,199	-	-	-	-	-
4,200-4,399	1	-	-	-	1
4,400-4,599	-	-	-	-	-
4,600-4,799	-	-	-	-	-
4,800-4,999	-	-	-	-	-
5,000 & Over	1	-	-	-	1

TABLE 10-B

Pensions Awarded During the Year Ended June 30, 2007
by Type of Pension and Monthly Amount

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

Monthly		Type of Pension			
Amount	Total	Normal	Early	Disability	Rule of 85
Total	267	75	75	11	106
Under $200	41	18	20	-	3
200-399	45	15	24	4	2
400-599	30	11	14	4	1
600-799	23	6	8	2	7
800-999	19	4	5	1	9
1,000-1,199	20	6	2	-	12
1,200-1,399	22	3	1	-	18
1,400-1,599	17	2	-	-	15
1,600-1,799	15	3	-	-	12
1,800-1,999	10	3	-	-	7
2,000-2,199	6	2	-	-	4
2,200-2,399	7	-	-	-	7
2,400-2,599	6	-	1	-	5
2,600-2,799	3	1	-	-	2
2,800-2,999	1	-	-	-	1
3,000-3,199	-	-	-	-	-
3,200-3,399	-	-	-	-	-
3,400-3,599	1	-	-	-	1
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	1	1	-	-	-
5,000 & Over	-	-	-	-	-

TABLE 10-C

Pensions Awarded During the Year Ended June 30, 2007 by Type of Pension and Monthly Amount

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

Monthly Amount	Total	Type of Pension: Normal	Early	Disability	Rule of 85
Total	474	141	118	25	190
Under $200	62	31	27	1	3
200-399	76	25	40	9	2
400-599	56	21	23	11	1
600-799	28	6	13	2	7
800-999	34	13	6	2	13
1,000-1,199	34	12	4	-	18
1,200-1,399	33	7	2	-	24
1,400-1,599	28	6	1	-	21
1,600-1,799	25	4	-	-	21
1,800-1,999	25	5	1	-	19
2,000-2,199	15	4	-	-	11
2,200-2,399	12	1	-	-	11
2,400-2,599	15	-	1	-	14
2,600-2,799	10	1	-	-	9
2,800-2,999	10	1	-	-	9
3,000-3,199	2	1	-	-	1
3,200-3,399	4	2	-	-	2
3,400-3,599	2	-	-	-	2
3,600-3,799	-	-	-	-	-
3,800-3,999	-	-	-	-	-
4,000-4,199	-	-	-	-	-
4,200-4,399	1	-	-	-	1
4,400-4,599	-	-	-	-	-
4,600-4,799	-	-	-	-	-
4,800-4,999	1	1	-	-	-
5,000 & Over	1	-	-	-	1

TABLE 11-A

Pensions Awarded During the Year Ended June 30, 2007
by Type of Pension and Nearest Age

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

		Type of Pension			
Nearest Age	Total	Normal	Early	Disability	Rule of 85
Total	207	66	43	14	84
Under 50	3	-	-	3	-
50-54	9	-	-	2	7
55-59	41	2	6	4	29
60-64	75	-	33	3	39
65-69	57	42	4	2	9
70-74	15	15	-	-	-
75 & Over	7	7	-	-	-

TABLE 11-B

Pensions Awarded During the Year Ended June 30, 2007
by Type of Pension and Nearest Age

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

		Type of Pension			
Nearest Age	Total	Normal	Early	Disability	Rule of 85
Total	267	75	75	11	106
Under 50	4	-	-	4	-
50-54	11	-	-	-	11
55-59	46	1	10	3	32
60-64	110	-	53	4	53
65-69	79	57	12	-	10
70-74	15	15	-	-	-
75 & Over	2	2	-	-	-

TABLE 11-C

Pensions Awarded During the Year Ended June 30, 2007 by Type of Pension and Nearest Age

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

		Type of Pension			
Nearest Age	Total	Normal	Early	Disability	Rule of 85
Total	474	141	118	25	190
Under 50	7	-	-	7	-
50-54	20	-	-	2	18
55-59	87	3	16	7	61
60-64	185	-	86	7	92
65-69	136	99	16	2	19
70-74	30	30	-	-	-
75 & Over	9	9	-	-	-

TABLE 12-A

Current Plan Pensions in Force on July 1, 2007
by Type of Pension and Monthly Amount

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

Monthly		Type of Pension			
Amount	Total	Normal	Early	Disability	Service*
Total	2,602	872	611	160	959
Under $200	274	159	95	12	8
200-399	429	170	186	65	8
400-599	339	126	147	54	12
600-799	216	99	84	15	18
800-999	190	72	38	8	72
1,000-1,199	224	70	26	3	125
1,200-1,399	188	42	11	1	134
1,400-1,599	123	28	7	1	87
1,600-1,799	115	23	2	-	90
1,800-1,999	93	14	4	-	75
2,000-2,199	80	10	1	1	68
2,200-2,399	78	12	5	-	61
2,400-2,599	61	5	1	-	55
2,600-2,799	53	10	1	-	42
2,800-2,999	35	9	1	-	25
3,000-3,199	21	2	-	-	19
3,200-3,399	27	4	1	-	22
3,400-3,599	9	-	1	-	8
3,600-3,799	5	2	-	-	3
3,800-3,999	9	2	-	-	7
4,000-4,199	6	2	-	-	4
4,200-4,399	11	4	-	-	7
4,400-4,599	3	1	-	-	2
4,600-4,799	5	3	-	-	2
4,800-4,999	3	1	-	-	2
5,000 & Over	5	2	-	-	3

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

TABLE 12-B

Current Plan Pensions in Force on July 1, 2007
by Type of Pension and Monthly Amount

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

Monthly Amount	Total	Type of Pension: Normal	Early	Disability	Service*
Total	3,260	1,036	1,240	187	797
Under $200	567	209	338	13	7
200-399	876	309	486	75	6
400-599	569	215	271	63	20
600-799	328	127	87	29	85
800-999	264	62	35	6	161
1,000-1,199	200	45	16	1	138
1,200-1,399	141	28	4	-	109
1,400-1,599	92	13	1	-	78
1,600-1,799	78	11	1	-	66
1,800-1,999	44	4	-	-	40
2,000-2,199	36	6	-	-	30
2,200-2,399	22	1	-	-	21
2,400-2,599	14	-	1	-	13
2,600-2,799	11	1	-	-	10
2,800-2,999	6	-	-	-	6
3,000-3,199	1	1	-	-	-
3,200-3,399	4	1	-	-	3
3,400-3,599	2	-	-	-	2
3,600-3,799	1	1	-	-	-
3,800-3,999	2	1	-	-	1
4,000-4,199	-	-	-	-	-
4,200-4,399	1	-	-	-	1
4,400-4,599	-	-	-	-	-
4,600-4,799	-	-	-	-	-
4,800-4,999	1	1	-	-	-
5,000 & Over	-	-	-	-	-

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

TABLE 12-C

Current Plan Pensions in Force on July 1, 2007 by Type of Pension and Monthly Amount

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

Monthly Amount	Total	Type of Pension			
		Normal	Early	Disability	Service*
Total	5,862	1,908	1,851	347	1,756
Under $200	841	368	433	25	15
200-399	1,305	479	672	140	14
400-599	908	341	418	117	32
600-799	544	226	171	44	103
800-999	454	134	73	14	233
1,000-1,199	424	115	42	4	263
1,200-1,399	329	70	15	1	243
1,400-1,599	215	41	8	1	165
1,600-1,799	193	34	3	-	156
1,800-1,999	137	18	4	-	115
2,000-2,199	116	16	1	1	98
2,200-2,399	100	13	5	-	82
2,400-2,599	75	5	2	-	68
2,600-2,799	64	11	1	-	52
2,800-2,999	41	9	1	-	31
3,000-3,199	22	3	-	-	19
3,200-3,399	31	5	1	-	25
3,400-3,599	11	-	1	-	10
3,600-3,799	6	3	-	-	3
3,800-3,999	11	3	-	-	8
4,000-4,199	6	2	-	-	4
4,200-4,399	12	4	-	-	8
4,400-4,599	3	1	-	-	2
4,600-4,799	5	3	-	-	2
4,800-4,999	4	2	-	-	2
5,000 & Over	5	2	-	-	3

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

TABLE 13-A

Current Plan Pensions in Force on July 1, 2007
by Type of Pension and Nearest Age

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

		Type of Pension			
Nearest Age	Total	Normal	Early	Disability	Service*
Total	2,602	872	611	160	959
Under 50	17	-	-	17	-
50-54	28	-	-	17	11
55-59	158	5	21	35	97
60-64	322	2	87	31	202
65-69	562	140	148	21	253
70-74	547	186	118	22	221
75-79	423	193	107	9	114
80-84	300	168	72	7	53
85-89	172	118	45	1	8
90 & Over	73	60	13	-	-

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

TABLE 13-B

Current Plan Pensions in Force on July 1, 2007
by Type of Pension and Nearest Age

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

		Type of Pension			
Nearest Age	Total	Normal	Early	Disability	Service*
Total	3,260	1,036	1,240	187	797
Under 50	26	-	-	26	-
50-54	44	-	-	19	25
55-59	148	1	27	28	92
60-64	442	-	187	46	209
65-69	727	177	276	32	242
70-74	688	219	303	21	145
75-79	491	209	217	10	55
80-84	378	197	152	5	24
85-89	207	142	60	-	5
90 & Over	109	91	18	-	-

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

TABLE 13-C

Current Plan Pensions in Force on July 1, 2007
by Type of Pension and Nearest Age

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

		Type of Pension			
Nearest Age	Total	Normal	Early	Disability	Service*
Total	5,862	1,908	1,851	347	1,756
Under 50	43	-	-	43	-
50-54	72	-	-	36	36
55-59	306	6	48	63	189
60-64	764	2	274	77	411
65-69	1,289	317	424	53	495
70-74	1,235	405	421	43	366
75-79	914	402	324	19	169
80-84	678	365	224	12	77
85-89	379	260	105	1	13
90 & Over	182	151	31	-	-

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

TABLE 14-A

Special Prior Service Pensions in Force on July 1, 2007 by Monthly Amount

(Males)

Monthly Amount	Total
Total	8
Under $20	1
20-39	4
40-59	-
60-79	1
80-99	2
100-119	-
120-139	-
140-159	-
160 & Over	-

TABLE 14-B

Special Prior Service Pensions in Force on July 1, 2007 by Monthly Amount

(Females)

Monthly Amount	Total
Total	29
Under $20	7
20-39	8
40-59	5
60-79	6
80-99	1
100-119	-
120-139	1
140-159	-
160 & Over	1

TABLE 14-C

Special Prior Service Pensions in Force on July 1, 2007 by Monthly Amount

(All Members)

Monthly Amount	Total
Total	37
Under $20	8
20-39	12
40-59	5
60-79	7
80-99	3
100-119	-
120-139	1
140-159	-
160 & Over	1

TABLE 15-A

Special Prior Service Pensions in Force on July 1, 2007
by Nearest Age

(Males)

Nearest Age	Total
Total	8
85-89	-
90-94	2
95-99	6
100 & Over	-

TABLE 15-B

Special Prior Service Pensions in Force on July 1, 2007
by Nearest Age

(Females)

Nearest Age	Total
Total	29
85-89	1
90-94	10
95-99	15
100 & Over	3

TABLE 15-C

Special Prior Service Pensions in Force on July 1, 2007
by Nearest Age

(All Members)

Nearest Age	Total
Total	37
85-89	1
90-94	12
95-99	21
100 & Over	3

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NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

Retiree Health Insurance Credit Fund

Actuarial Valuation Report as of July 1, 2007

SEGAL

THE SEGAL COMPANY
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October 11, 2007

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 Retiree Health Insurance Credit Fund as of July 1, 2007.

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; and
- Prepared in accordance with standards of practice prescribed by the Actuarial Standards Board.

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 actuarial valuation.

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

Sincerely,

Mike Moehle

Michael Moehle FSA, MAAA, EA
Vice President and Consulting Actuary

Theodore J. Shively

Theodore J. Shively, ASA, MAAA, EA
Vice President and Actuary

Kurt Schneider

Kurt Schneider, ASA, MAAA, EA
Associate Actuary

KS/bqb:hy

cc: Sparb Collins

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TABLE OF CONTENTS

I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2007. The employer contribution requirements presented in Section V of the report are based on:

1. The present provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund;

2. The characteristics of covered active members, and pensioners and beneficiaries as of July 1, 2007;

3. The assets of the Fund as of June 30, 2007; and

4. Actuarial assumptions regarding investment earnings and rates of participation, 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 Fund in accordance with the benefit provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund.

If each of the actuarial assumptions is exactly fulfilled, the true actuarial cost of the Fund 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 Fund experiences net actuarial losses and will decrease if the Fund experiences net actuarial gains.

II. HIGHLIGHTS

- The present rate of contributions is sufficient to meet the actuarially determined requirement for 2007-2008, based upon the actuarial assumptions and financing objectives approved by the Board.

- The actuarial contribution requirement for 2007-2008 is $5.7 million, or 0.95% of payroll. Since the statutory contribution rate is 1.00% of payroll, actual contributions should exceed the actuarial requirement.

- As indicated on page 11 of this report, the total deferred appreciation as of June 30, 2007 is approximately $6.4 million. This appreciation will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of losses derived from future experience.

- The return on the market value of assets for 2006-2007 was 15.91%, and was 8.31% for the preceding year.

- The return on the actuarial value of assets for 2006-2007 was 10.44% compared to the investment return assumption of 8.0%. As a result, the Fund experienced an investment gain on an actuarial basis of approximately $845,000.

- The ratio of actuarial value of assets to the market value of assets is 85.9%. Last year, this ratio was 89.8%. This change is an expected result of the actuarial smoothing technique.

- Members of the optional defined contribution plan are also eligible to participate in the Retiree Health Insurance Credit Fund. We included 244 active members in this actuarial valuation.

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

III. MEMBER CHARACTERISTICS

Nonretired Members

Detailed information for 18,929 active members as of July 1, 2007 was provided by the Retirement Office. The data included name, sex, date of birth, date of hire, months of service, and annual earnings.

Age, service, and compensation data is summarized below:

	Males	Females	Total
Number of active members	7,435	11,494	18,929
Average age	46.9	46.7	46.8
Average years of service	11.3	10.1	10.6
Total annual compensation	$276,585,527	$326,267,800	$602,853,327
Average annual compensation	$37,200	$28,386	$31,848

Distributions of the active members by sex, age, and service as of July 1, 2007 are presented in Tables 1, 2 and 3.

Retired Members

Information regarding the Fund's pensioners and beneficiaries shows that benefits were being paid to 3,922 individuals on July 1, 2007. The average benefit paid to these retired members is $98 per month. Their average age is 72.5 years. Distributions of the retired members are presented in Tables 4, 5 and 6 by sex, monthly amount, and current age.

TABLE 1

Census of Members in Active Service on July 1, 2007
by Nearest Age and Years of Employment in PERS

(Males)

Nearest Age	Total	Years of Employment							
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	7,435	2,534	1,567	912	872	646	548	246	110
Under 20	5	5	-	-	-	-	-	-	-
20-24	200	198	2	-	-	-	-	-	-
25-29	540	462	77	1	-	-	-	-	-
30-34	580	314	226	40	-	-	-	-	-
35-39	717	296	210	160	50	1	-	-	-
40-44	846	285	193	143	181	43	1	-	-
45-49	1,114	296	227	153	173	157	103	5	-
50-54	1,262	266	225	155	164	176	196	77	3
55-59	1,176	211	191	126	163	158	177	104	46
60-64	691	125	134	86	98	88	59	51	50
65-69	205	43	58	34	34	15	8	6	7
70-74	66	21	15	9	7	6	3	2	3
75 & Over	33	12	9	5	2	2	1	1	1

TABLE 2

Census of Members in Active Service on July 1, 2007 by Nearest Age and Years of Employment in PERS

(Females)

		Years of Employment							
Nearest Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	11,494	4,277	2,644	1,463	1,267	897	593	272	81
Under 20	6	6	-	-	-	-	-	-	-
20-24	262	262	-	-	-	-	-	-	-
25-29	714	639	75	-	-	-	-	-	-
30-34	840	502	295	41	2	-	-	-	-
35-39	1,091	552	313	173	52	1	-	-	-
40-44	1,433	605	370	187	167	102	2	-	-
45-49	2,110	629	549	295	259	220	146	12	-
50-54	2,155	517	480	331	305	185	191	141	5
55-59	1,659	343	341	256	267	207	139	70	36
60-64	883	154	139	124	166	146	89	38	27
65-69	240	39	60	40	38	26	22	7	8
70-74	73	21	15	13	10	4	2	4	4
75 & Over	28	8	7	3	1	6	2	-	1

TABLE 3

Census of Members in Active Service on July 1, 2007
by Nearest Age and Years of Employment

(All Members)

		Years of Employment							
Nearest Age	Total	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	18,929	6,811	4,211	2,375	2,139	1,543	1,141	518	191
Under 20	11	11	-	-	-	-	-	-	-
20-24	462	460	2	-	-	-	-	-	-
25-29	1,254	1,101	152	1	-	-	-	-	-
30-34	1,420	816	521	81	2	-	-	-	-
35-39	1,808	848	523	333	102	2	-	-	-
40-44	2,279	890	563	330	348	145	3	-	-
45-49	3,224	925	776	448	432	377	249	17	-
50-54	3,417	783	705	486	469	361	387	218	8
55-59	2,835	554	532	382	430	365	316	174	82
60-64	1,574	279	273	210	264	234	148	89	77
65-69	445	82	118	74	72	41	30	13	15
70-74	139	42	30	22	17	10	5	6	7
75 & Over	61	20	16	8	3	8	3	1	2

TABLE 4

Distribution of Retired Members Receiving Benefits on July 1, 2007 by Nearest Age and Monthly Amount

(Males)

		Monthly Amount						
Nearest Age	Total	Under $30	$30-$59	$60-$89	$90-$119	$120-$149	$150-$179	$180 & Over
Total	1,662	74	212	287	317	427	271	74
Under 50	4	0	4	0	0	0	0	0
50–54	15	2	2	2	1	7	1	0
55–59	84	5	9	3	5	44	17	1
60–64	186	9	15	13	29	76	35	9
65–69	338	12	40	38	82	82	65	19
70–74	373	9	44	69	72	97	59	23
75–79	302	22	47	62	58	58	46	9
80–84	198	8	34	54	38	29	29	6
85 & Over	162	7	17	46	32	34	19	7

TABLE 5

Distribution of Retired Members Receiving Benefits on July 1, 2007 by Nearest Age and Monthly Amount

(Females)

		Monthly Amount						
Nearest Age	Total	Under $30	$30-$59	$60-$89	$90-$119	$120-$149	$150-$179	$180 & Over
Total	2,260	147	490	566	503	354	151	49
Under 50	13	7	3	2	1	0	0	0
50-54	29	6	3	7	2	5	6	0
55-59	94	3	19	8	4	39	21	0
60-64	291	25	58	31	78	68	24	7
65-69	457	33	88	90	135	83	21	7
70-74	493	35	114	138	112	59	23	12
75-79	369	18	88	121	65	43	25	9
80-84	282	8	79	85	60	32	13	5
85 & Over	232	12	38	84	46	25	18	9

TABLE 6

Distribution of Retired Members Receiving Benefits on July 1, 2007 by Nearest Age and Monthly Amount

(All Retired Members)

		Monthly Amount						
Nearest Age	Total	Under $30	$30-$59	$60-$89	$90-$119	$120-$149	$150-$179	$180 & Over
Total	3,922	221	702	853	820	781	422	123
Under 50	17	7	7	2	1	0	0	0
45-49	44	8	5	9	3	12	7	0
50-54	178	8	28	11	9	83	38	1
55-59	477	34	73	44	107	144	59	16
60-64	795	45	128	128	217	165	86	26
65-69	866	44	158	207	184	156	82	35
70-74	671	40	135	183	123	101	71	18
75-79	480	16	113	139	98	61	42	11
80 & Over	394	19	55	130	78	59	37	16

IV. ASSETS

Market Value of Assets

Financial information was provided by the North Dakota Public Employees Retirement System. Following is a comparison of the Retiree Health Insurance Credit Fund assets at market value:

	June 30, 2007	June 30, 2006
Investments	$44,533,453	$37,242,565
Cash	66,803	35,946
Contributions receivable	411,542	399,426
Interest receivable	420,924	338,916
Accounts payable	(154,002)	(111,618)
Net assets	$45,278,720	$37,905,235

The rate of return on the market value basis was 15.91% for the year ended June 30, 2007.

Actuarial Value of Assets

The actuarial value of assets are 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 actuarial value of assets as of June 30, 2007 was $38,881,121 compared to $34,020,413 as of June 30, 2006. On an actuarial basis, the rate of return was 10.44% for the year ended June 30, 2007.

Table 7 shows that there is approximately $6.4 million of appreciation that will be recognized in future years. For the prior year, there was approximately $3.9 million of appreciation to be recognized in future years.

Table 8 presents a statement of income and disbursements on an actuarial value basis for the past two years.

TABLE 7

Determination of Actuarial Value of Assets as of June 30, 2006 and 2005

		Of Total Appreciation			
		June 30, 2007		June 30, 2006	
Year Ending	Total Appreciation (Depreciation)	Percent Deferred	Amount Deferred	Percent Deferred	Amount Deferred
June 30, 2003	$284,302	0%	$0	20%	$56,860
June 30, 2004	3,227,544	20%	645,508	40%	1,291,018
June 30, 2005	1,833,279	40%	733,312	60%	1,099,967
June 30, 2006	1,796,221	60%	1,077,733	80%	1,436,977
June 30, 2007	4,926,308	80%	3,945,046	N/A	0
(a) Total Deferred as of Valuation Date			$6,397,599		$3,884,822
(b) Total Appreciation (Depreciation) for last five Plan Years			12,067,654		4,673,877
(c) Write-Up/(Down) Amount for the year - equals 20% of (b)			2,413,531		934,775
			July 1, 2007		July 1, 2006
Market Value of Assets			$45,278,720		$37,905,235
Less: Deferred Appreciation (Depreciation)			6,397,599		3,884,822
Actuarial Value of Assets			$38,881,121		$34,020,413
Actuarial Value as a Percentage of Market Value			85.87%		89.75%

TABLE 8

Summary Statement of Income and Disbursements for the Years Ended June 30, 2007 and 2006 (Actuarial Value Basis)

	June 30, 2007	June 30, 2006
Contribution Income:		
Employer Contributions	$5,665,071	$5,373,091
Member Contributions	7,959	7,210
Service Credit Repurchases	204,758	211,601
Total Contribution Income	$5,877,788	$5,591,902
Less: Administrative Expenses	(104,953)	(88,569)
Net Contribution Income	$5,772,835	$5,503,333
Investment Income:		
Interest and Dividends	$1,331,047	$1,102,168
Less: Investment Expenses	(128,097)	(69,457)
Net Interest and Dividends	$1,202,950	$1,032,711
Write-Up of Assets	2,413,531	934,774
Net Investment Income	$3,616,481	$1,967,485
Total Income Available for Benefit Payments and Reserves	$9,389,316	$7,470,818
Benefit Payments:		
Health Credit Benefits	$(4,525,810)	$(4,337,900)
Refunds	(2,798)	(4,291)
Total Benefit Payments	$(4,528,608)	$(4,342,191)
Addition to Reserve for Future Benefit Payments	$4,860,708	$3,128,627
Actuarial Value of Assets, Start of Year	34,023,413	30,891,786
Actuarial Value of Assets, End of Year	$38,881,121	$34,020,413

V. 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 amortization period of 40 years beginning July 1, 1990 (23 years remaining as of July 1, 2007). Amortization payments are based on a level percent of payroll. The calculated employer contribution requirements on this basis for fiscal year 2007-2008 are shown below as a dollar amount and as a percentage of the total compensation of contributing employees.

The components of the actuarial contribution requirement are as follows:

	Amount for 2007 - 2008	Percentage of Payroll	Cost per Active Employee
Normal cost	$2,698,131	0.45%	$143
Administrative expense allowance	65,000	0.01	3
Amortization payment	2,945,326	0.49	156
Total employer contributions	$5,708,457	0.95%	$302

Covered payroll is $602,853,327 for 18,929 active employees.

The statutory contribution rate is 1.00% of payroll. Actual contributions for 2007-2008 should exceed the actuarial contribution requirement.

A reconciliation of the change since the previous actuarial valuation is as follows:

	As a Percentage of Payroll
Employer cost rate as of July 1, 2006	1.00%
Plan experience	(0.05)
Employer cost rate as of July 1, 2007	0.95%

VI. FUNDING STATUS

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

The funded ratio shown below is based on assets and liabilities developed in the actuarial valuation. It uses the actuarial accrued liability developed by the projected unit credit actuarial cost method and the actuarial value of assets.

The funded ratio for the past six years is determined below. The progress of this ratio reveals overall improvement in the plan's funded condition.

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
2002	68,988,084	26,402,058	38.3%
2003	71,976,336	27,473,723	38.2
2004	74,589,006	28,949,719	38.8
2005	78,090,560	30,891,785	39.6
2006	82,632,628	34,020,413	41.2
2007	85,342,012	38,881,121	45.6

VII. ACTUARIAL ASSUMPTIONS AND COST METHODS

The assumptions and cost methods used in the actuarial valuation as of July 1, 2007 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 III of the attachment.

Investment Return

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

Retirement Rates

The retirement rates used in the valuation differ for active members of the Main System, Highway Patrol, Judges, National Guard and Law Enforcement. Rates for the Main System are described below. The retirement assumptions for members of the Highway Patrol, Judges, National Guard and Law Enforcement are detailed in the valuation reports for their retirement systems.

For members of the Main System, sample retirement rates are: 4% at age 55, 8% at age 60, 40% at age 65, and 100% at age 70.

Withdrawal Rates before Retirement

The withdrawal rates used in this actuarial valuation are intended to recognize the percentage of members who will leave service at each age prior to retirement for reasons other than death or disability. Withdrawal rates differ for active members of the Main System, Highway Patrol, Judges, National Guard and Law Enforcement. Rates for the Main System are described below. The withdrawal assumptions for members of the Highway Patrol, Judges, National Guard and Law Enforcement are detailed in the valuation report for their retirement systems.

Select and ultimate rates are used for the Main System. During the select period (first five years of employment), rates vary by year of service and age. During the ultimate period (after five years of employment), Main System rates vary by age and sex. The Main System rates are detailed in Exhibit III.

Disability Rates

Disability rates differ for active members of the Public Employees Retirement System (PERS) and the Highway Patrol. Rates for PERS are summarized below for selected ages. The disability assumptions for the Highway Patrol are detailed in the valuation report for their retirement system.

Age	Males	Females
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

Mortality Rates

The reserve required to pay a member's retirement benefits depends on the period over which payments will be received. The valuation is based on 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 schedule below shows the annual mortality rates and life expectancies underlying the healthy mortality tables.

	Retired Members			
	Males		Females	
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	5.7	25.2	2.5	30.3
60	8.4	21.0	4.2	25.7
65	13.9	17.0	7.1	21.3
70	24.8	13.3	12.4	17.2
75	40.4	10.2	24.0	13.4
80	67.1	7.6	42.9	10.2
85	106.0	5.6	69.9	7.6

Administrative Expenses

Annual administrative expenses are assumed to be $65,000.

Marital Status

At death, 75% of male members of PERS and 60% of female members of PERS are assumed to have spouses. Main males are assumed to be four years older than their female spouses. All other PERS males are assumed to be five years older than their female spouses.

For the Highway Patrol, 90% of all active members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

Valuation of Assets

Investments are carried at an adjusted market value. The net market appreciation (depreciation) is spread over five years in equal dollar amounts, commencing with the year of occurrence. The actuarial value of assets is the market value less deferred appreciation (depreciation).

Participation Rates

Receipt of benefits from the Fund is contingent upon the member's election of participation in the North Dakota uniform group insurance program. The assumption concerning the percentage of active members participating in this program varies with the member's service at retirement. Assumed participation rates are as follows:

Main System, National Guard and Law Enforcement		Judges and Highway Patrol	
Years of Service	Participation Rate	Years of Service	Participation Rate
3 - 4	25%	5 - 9	50%
5 - 9	50%	10 - 14	70%
10 - 14	70%	15 - 19	80%
15 - 19	80%	20 - 24	95%
20 - 24	95%	25 and over	100%
25 and over	100%		

Projected Unit Credit Actuarial Cost Method

Under the Projected Unit Credit Actuarial Cost Method, benefits are projected to each assumed occurrence of decrement (death, disability, retirement) using service as of the valuation date. The normal cost is equal to the actuarial present value of the benefits allocated to the current year.

The actuarial accrued liability for active members is equal to the actuarial present value of the benefits allocated to all prior years. The actuarial assumptions used to determine the liabilities for members of the optional defined contribution plan are the same as those used for the Main System. The actuarial accrued liability for members currently receiving benefits and for participants entitled to deferred benefits is the actuarial present value of the benefits expected to be paid. The unfunded actuarial accrued liability is equal to the actuarial accrued liability minus the actuarial value of assets. This amount is amortized as a level percentage of payroll over a fixed period of years. Payroll is assumed to increase by 4.5% per year.

October 11, 2007

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE HEALTH INSURANCE CREDIT FUND

Actuarial Valuation Certificate

This is to certify that we have prepared an Actuarial Valuation of the Fund as of July 1, 2007 in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:

I. Actuarial Valuation Results

II. Changes in Plan Provisions, Actuarial Assumptions, and Cost Methods

III. Actuarial Assumptions and Cost Methods

IV. 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 Fund and to reasonable expectations and (b) represents our best estimate of anticipated experience under the Fund.

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

Mike Moehle

Michael Moehle FSA, MAAA, EA
Vice President and Consulting Actuary

Theodore J. Shively

Theodore J. Shively, ASA, MAAA, EA
Vice President and Actuary

Kurt Schneider

Kurt Schneider, ASA, MAAA, EA
Associate Actuary

EXHIBIT I

ACTUARIAL VALUATION RESULTS

1. Actuarial accrued liability on July 1, 2007:

	a. Active members	$ 48,485,348	
	b. Retired members and beneficiaries	36,856,664	
	c. Total		$85,342,012
2.	Assets at actuarial value ($45,278,720 at market value)		38,881,121
3.	Unfunded actuarial accrued liability - equals (1) minus (2)		46,460,891
4.	Normal cost for ensuing year*		2,698,131
5.	Amortization payment - equals 23-year amortization of item (3) as a level percent of total payroll*		2,945,326
6.	Administrative expenses		65,000
7.	Total cost for ensuing year - equals (4) plus (5) plus (6)		5,708,457
8.	Total payroll of covered members		602,853,327
9.	Total employer cost as percentage of payroll - equals (7) divided by (8)		0.95%

* Adjusted for interest to recognize payments throughout the year.

EXHIBIT II

CHANGES IN PLAN PROVISIONS, ACTUARIAL ASSUMPTIONS, AND COST METHODS

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

EXHIBIT III

ACTUARIAL ASSUMPTIONS AND COST METHODS

1. **Mortality Tables:**

Healthy: 1983 Group Annuity Mortality Table, set back one year for males.

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

2. **Annual Withdrawal Rates:**

Different withdrawal rates are applied to the active members of the Main System, Highway Patrol, Judges, National Guard and Law Enforcement. Rates for the Main System are detailed below. The withdrawal assumptions applied to the active members in the other groups are detailed in the valuation report for their retirement system.

Select and ultimate rates are used for active members of the Main System. During the select period (first five years of active employment) rates vary by entry age and year of employment. During the ultimate period (active employment after the first five years), rates vary by attained age and sex.

Select Period

	Year of Employment				
Age	1	2	3	4	5
29 & Under	18%	15%	12%	10%	15%
30 - 39	12	12	11	10	11
40 & Over	10	10	8	7	6

Ultimate Period

Age	Male	Female
20 - 24	12.0%	12.0%
25 - 29	8.0	10.0
30 - 34	5.0	8.0
35 - 39	3.5	5.0
40 - 44	3.0	4.0
45 - 49	2.5	3.5
50 & Over	2.0	3.0

EXHIBIT III (continued)

3. **Disability Incidence Rates:**

Different disability incidence rates are applied to the active members of PERS and the Highway Patrol. The disability rates applied to the Highway Patrol are described in the valuation report for their retirement system.

Sample rates for PERS are:

Age	Males	Females
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

4. **Retirement Rates for Active Members:**

Different retirement rates are applied to the active members of the Main System, Highway Patrol, Judges, National Guard and Law Enforcement. Retirement rates for the Main System are detailed below. The retirement rates applied to the active members of the other groups are detailed in the valuation report for their retirement system.

Annual rates for the Main System are as follows:

Age	Rule of 85 Eligible Rate	All Other Retirements	Age	Rule of 85 Eligible Rate	All Other Retirements
55	4%	4%	63	25%	20%
56	6	4	64	25	20
57	6	4	65	40	30
58	6	4	66	20	20
59	6	4	67	20	20
60	8	6	68	20	20
61	15	12	69	20	20
62	35	25	70	100	100

Age 64 and 20 years of service: 100%

EXHIBIT III (continued)

5. **Participation Rates:**

The percentage of eligible members electing coverage under the health insurance program and receiving the stipend varies with years of service. Rates are as follows:

Main System, National Guard and Law Enforcement		Judges and Highway Patrol	
Years of Service	Participation Rate	Years of Service	Participation Rate
3 - 4	25%	5 - 9	50%
5 - 9	50%	10 - 14	70%
10 - 14	70%	15 - 19	80%
15 - 19	80%	20 - 24	95%
20 - 24	95%	25 or more	100%
25 or more	100%		

6. **Joint and Survivor Option Election Rates:**

Main System, Judges, National Guard and Law Enforcement:

65% of male retirees and 20% of female retirees will elect a joint and survivor form of pension from the retirement system in which they participated.

Highway Patrol:

90% of retirees will elect a joint and survivor form of pension from the retirement system.

7. **Interest Rate:**

8.00% per annum, net of investment expenses.

8. **Annual Administrative Expenses:**

$100,000.

9. **Inflation:**

3.50% per annum.

10. Marital Status:

Main System, Judges, National Guard and Law Enforcement:

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. For the Main system, males are assumed to be four years older than their female spouses.

Highway Patrol:

At death, 90% of all active members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

11. Optional Defined Contribution Plan:

The actuarial assumptions used to determine the liabilities for members of the optional defined contribution plan are the same as those used for the Main System.

12. Actuarial Cost Method:

Projected Unit Credit Actuarial Cost Method. Unfunded actuarial accrued liability amortized in installments assuming 4.5% inflation assumption over a fixed period that ends on June 30, 2030.

13. 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.

EXHIBIT IV

SUMMARY OF PLAN PROVISIONS

This appendix summarizes the major benefit provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund 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 Retirement:**

Age requirement:

Main System and Judges:	Age 65 or Rule of 85.
Highway Patrol:	Age 55 or Rule of 80.
National Guard:	Age 55.
Law Enforcement:	Age 55 or Rule of 85.

Service requirement:

Main System and Judges:	None.
Highway Patrol:	Ten years.
National Guard and Law Enforcement:	Three consecutive years.

Other requirements:	Participation in the North Dakota Uniform Group Insurance Program.
Benefit amount:	A monthly stipend equal to $4.50 times service.

2. **Early Retirement:**

Age requirement:

Main System and Judges:	Age 55.
Highway Patrol, National Guard and Law Enforcement:	Age 50.

Service requirement:

Highway Patrol, National Guard and Law Enforcement:	Three years.
Judges:	Five years.
Highway Patrol:	Ten years.

EXHIBIT IV (continued)

Benefit amount:

Main System and Judges:

The Normal Retirement Benefit reduced by 3% for retirements at age 64 and an additional 6% for each year by which retirement precedes age 64.

Benefits are unreduced upon the fulfillment of the Rule of 85.

Highway Patrol, National Guard and Law Enforcement:

The Normal Retirement Benefit reduced by 3% for retirements at age 54 and an additional 6% for each year by which retirement precedes age 54.

Benefits are unreduced upon the fulfillment of the Rule of 80.

3. Disability Retirement:

Age requirement:	None.
Service requirement:	Six months.
Other requirements:	As required by applicable pension plan.
Benefit amount:	Same as Normal Retirement Benefit.

4. Pre-Retirement Death Benefit:

Age requirement:	None.
Service requirement:	
Main System, National Guard and Law Enforcement:	Three years.
Judges:	Five years.
Highway Patrol:	Ten years.

Benefit amount: Same as Normal Retirement Benefit accrued to the date of the member's death, payable for as long as benefits are payable to the spouse from the Retirement System under the standard option.

EXHIBIT IV (continued)

5. **Post-Retirement Death Benefit:**

Following a retired member's death, the Retiree Health Insurance Credit Fund will: (1) continue benefits to the member's spouse if the spouse continues to receive a monthly pension from member's Retirement System or (2) provide benefits to the member's spouse if the member selected a joint and survivor option from the Retiree Health Insurance Credit Fund.

6. **Alternative Options:**

If benefits from the member's Retirement System are paid under single life, level Social Security, or 10 or 20 year term certain options (without a continuation to the spouse after the certain period ends), actuarially reduced health credit benefits may be elected for the spouse. Alternative options in the Retiree Health Insurance Credit Fund include 50% and 100% joint and survivor annuities.

7. **Service:**

Members receive credit for each year and month of employment.

8. **Contributions:**

The employer contributes 1.00% of covered salaries and wages for participating employees.

4027761v1/01640.001

NORTH DAKOTA HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

Actuarial Valuation Report as of July 1, 2007

SEGAL

THE SEGAL COMPANY
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October 11, 2007

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 Highway Patrolmen's Retirement System as of July 1, 2007.

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; and
- Prepared in accordance with standards of practice prescribed by the Actuarial Standards Board.

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.

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

Sincerely,

Mike Moehle

Michael Moehle, FSA, MAAA, EA
Vice President and Consulting Actuary

Theodore J. Shively, ASA, MAAA, EA
Vice President and Actuary

Kurt Schneider

Kurt Schneider, ASA, MAAA, EA
Associate Actuary

KS/bqb

cc: Sparb Collins

4027225v1/01640.001

TABLE OF CONTENTS

I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2007. The employer contribution requirements presented in Section VI of the report are based on:

1. The present provisions of the North Dakota Highway Patrolmen's Retirement System;
2. The characteristics of covered active members, inactive non-retired members, pensioners and beneficiaries as of July 1, 2007;
3. The assets of the System as of June 30, 2007; 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 Highway Patrolmen's Retirement System in accordance with its benefit provisions.

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 sufficient to meet the actuarially determined requirement for 2007-2008, 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.
- The employer actuarial contribution requirement for 2007-2008 is $924,178, or 15.08% of payroll. The statutory rate of 16.70% of payroll is greater than the actuarially determined rate by 1.62% of payroll. Last year, the actuarially determined rate of 19.03% exceeded the statutory rate of payroll by 2.33% of payroll.
- The return on the market value of assets for 2006-2007 was 19.70%, and was 12.12% for the previous year.
- The return on the actuarial value of assets for 2006-2007 was 16.31% compared to the investment return assumption of 8.00%. As a result, the System experienced an investment gain of $3.5 million.
- The ratio of the actuarial value of assets to the market value of assets was 80.0%. Last year, this ratio was 82.8%.
- A comparison of this year's funded ratio to the prior year is as follows:

	July 1, 2007	July 1, 2006
Actuarial Value of Assets	$48,167,914	$42,758,360
Actuarial Accrued Liability	51,536,518	49,127,046
Funded Ratio	93.5%	87.0%

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

III. MEMBER CHARACTERISTICS

Last year, as of July 1, 2006, there were 127 covered active members, four terminated members eligible for a deferred vested benefit, and two terminated members eligible for a refund of their accumulated contributions. During the year, five members terminated employment and four members retired. There were 15 new members in fiscal year 2006-2007. Hence, there were 133 active Highway Patrolmen covered under the provisions of the System as of July 1, 2007. The significant age, service, salary and accumulated contribution information for these members is summarized below along with comparative figures from the preceding actuarial valuation.

	As of July 1, 2007	As of July 1, 2006
Number of active members		
Eligible for immediate retirement benefits	11	11
Vested (not eligible for immediate retirement)	57	52
Non-vested	65	64
Total*	133	127
Average age	37.2	37.7
Average years of service (excluding service before transfer)	10.7	11.2
Average annual salary	\$46,082	\$44,789
Average accumulated contributions	71,301	72,516

The average service decreased by 0.5 years since last year. For the 118 members continuing in active service from last year, average salaries increased by 7.6%. Distributions of active employees by age, service (excluding service before transfer), and salary are presented in Tables 1 and 2.

Four members from the Highway Patrol continue to be active in the Main System; 13 members from the Main System are active members in the Highway Patrol. Liabilities for these members are carried in both systems based on their service in that system.

Five terminated members are eligible for a deferred vested benefit and three terminated members are due a refund.

---

* Excludes four members with split service in the Highway Patrolmen's System and the Main System, and currently in the Main System.

TABLE 1

Census of Members in Active Service on July 1, 2007
by Nearest Age and Years of Employment

		Years of Employment					
Nearest Age	Total	Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 & Over
Total	133	46	19	23	27	9	9
20 - 24	8	8	-	-	-	-	-
25 - 29	26	22	4	-	-	-	-
30 - 34	22	8	10	4	-	-	-
35 - 39	28	4	3	15	6	-	-
40 - 44	18	2	1	2	11	2	-
45 - 49	19	1	-	2	7	6	3
50 - 54	12	1	1	-	3	1	6
55 & over	-	-	-	-	-	-	-

TABLE 2

Census of Members in Active Service on July 1, 2007 by Nearest Age and Actual Salary

		Actual Salary							
Nearest Age	Total	Less than $30,000	$30,000-$32,999	$33,000-$35,999	$36,000-$38,999	$39,000-$41,999	$42,000-$44,999	$45,000-$47,999	$48,000 & Over
Total	133	15	-	1	30	11	14	37	25
20 - 24	8	5	-	1	2	-	-	-	-
25 - 29	26	6	-	-	16	3	1	-	-
30 - 34	22	2	-	-	6	6	5	3	-
35 - 39	28	1	-	-	3	2	5	10	7
40 - 44	18	-	-	-	1	-	1	8	7
45 - 49	19	-	-	-	1	-	1	11	6
50 - 54	12	-	-	-	1	-	1	5	5
55 & over	-	-	-	-	-	-	-	-	-

IV. BENEFIT EXPERIENCE

There were 78 pensioners (including three disableds) and 22 surviving spouses receiving benefits as of July 1, 2006. During the year ended June 30, 2007, four members were awarded retirement pensions, and one retiree and two beneficiaries died. Therefore, there were 81 pensioners (including three disableds) and 20 surviving spouses receiving benefits as of July 1, 2007. Key statistics on pensioners and beneficiaries are shown below.

	July 1, 2007	July 1, 2006
Number of pensioners and beneficiaries	101	100
Annualized benefits in force	$2,963,415	$2,799,646
Average monthly benefit	$2,445	$2,333
Average age	65.8	65.6

Tables 3 and 4 summarize the census data for pensioners and beneficiaries. In the year ended June 30, 2007, benefit payments totaled $2,978,776, including refund payments of $85,812. In the year ended June 30, 2006, benefit payments were $2,662,076,.

TABLE 3

Pensions in Force on July 1, 2007
by Type of Recipient and Monthly Amount

Monthly Amount	Total	Pensioner	Beneficiary	Disabled
Total	101	78	20	3
Under $ 200	2	-	2	-
200 - 399	7	1	6	-
400 - 599	2	2	-	-
600 - 799	2	-	2	-
800 - 999	4	-	4	-
1,000 - 1,199	4	1	3	-
1,200 - 1,399	2	1	1	-
1,400 - 1,599	2	-	1	1
1,600 - 1,799	1	1	-	-
1,800 - 1,999	1	1	-	-
2,000 - 2,199	6	5	-	1
2,200 - 2,399	7	6	-	1
2,400 - 2,599	12	11	1	-
2,600 - 2,799	10	10	-	-
2,800 - 2,999	5	5	-	-
3,000 - 3,199	9	9	-	-
3,200 - 3,399	4	4	-	-
3,400 - 3,599	8	8	-	-
3,600 - 3,799	2	2	-	-
3,800 & over	11	11	-	-

TABLE 4

Pensions in Force on July 1, 2007
by Type of Recipient and Nearest Age

Nearest Age	Total	Pensioner	Beneficiary	Disabled
Total	101	78	20	3
Under 55	16	12	1	3
55 - 59	20	18	2	-
60 - 64	17	15	2	-
65 - 69	11	8	3	-
70 - 74	13	12	1	-
75 - 79	15	9	6	-
80 - 84	5	1	4	-
85 - 89	4	3	1	-
90 & over	-	-	-	-

V. ASSETS

Market Value of Assets

The combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and the Highway Patrolmen's Retirement System (HPRS) was $1,939,134,759 as of June 30, 2007, compared to $1,638,868,514 last year. This year's combined market value represents an increase of 18.32% over the market value one year earlier.

The market value of net assets attributable to the Highway Patrolmen's Retirement System as of July 1, 2007 was $60,209,892 compared to $51,628,427 as of July 1, 2006. The rate of return on the market value basis for the HPRS Fund was 19.70% for the year ended June 30, 2007.

Actuarial Value of Assets

The actuarial value of assets are 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 a five-year period.

The above procedure is applied to the combined assets of PERS and HPRS Retirement Income Funds to determine the combined actuarial value of assets. The combined actuarial value was $1,551,307,807 as of June 30, 2007. The determination of the combined actuarial asset value is shown in Table 5. This table shows that there is approximately $412 million of appreciation that will be recognized in future years.

Table 6 summarizes the combined investment results over the previous ten-year period. Over this period, the earnings of $924,446,400 on an actuarial value basis represented an average annual return of 8.79%. For the 2006-2007 year, the actuarial rate of return on the combined assets was 15.84%.

The total actuarial value of assets is allocated to PERS and HPRS in proportion to the reported market value of assets. This allocation is illustrated in Table 7 and results in an actuarial value of assets for HPRS as of July 1, 2007 of $48,167,914. Last year's actuarial value of assets was $42,758,360. On an actuarial basis, the rate of return on the HPRS Fund was 16.31% for the year ended June 30, 2007.

Chart 1 on page 12 is a graph showing the historical asset values for the HPRS Fund on both an actuarial and market value basis. A summary of income and disbursements for 2007 and 2006 on the actuarial value basis are given in Table 8 for HPRS. The progress of the HPRS Fund for the last ten years is provided in Table 9. It shows that assets have increased from year to year, although the amount of the increase has varied with fluctuations in investment income. Contributions and benefit payments have increased consistently over the period.

A picture of the financial development of the HPRS Fund over the last ten years is provided in Chart 2 on page 17. It shows that benefit payments and expenses continue to grow at a faster pace than 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 reflect market changes in full.

Investment Return

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

Year Ending June 30	Market Value	Actuarial Value
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
2005	14.17	4.36
2006	12.04	7.79
2007	19.63	15.84

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 18 illustrates this smoothing effect. By using an actuarial value that reduces the year-to-year fluctuations in investment return, year-to-year fluctuations in contribution requirements are minimized.

Investment return rates on the market value basis included 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 asset valuation method.

TABLE 5

Determination of Actuarial Value of Assets (for PERS and HPRS) as of June 30, 2007 and 2006

		Of Total Appreciation			
		June 30, 2007		June 30, 2006	
Year Ending	Total Appreciation (Depreciation)	Percent Deferred	Amount Deferred	Percent Deferred	Amount Deferred
June 30, 2003	$22,232,141	0%		20%	$4,446,428
June 30, 2004	156,289,529	20%	31,257,906	40%	62,515,812
June 30, 2005	154,870,262	40%	61,948,105	60%	92,922,157
June 30, 2006	152,103,565	60%	91,262,139	80%	121,682,852
June 30, 2007	285,031,438	80%	228,025,150	N/A	0
Total Deferred as of Valuation Date			$412,493,300		$281,567,249
(a) Total Appreciation (Depreciation) for last five Plan Years			770,526,935		369,554,515
(b) Write-Up/(Down) Amount for the year - equals 20% of (b)			154,105,387		73,910,903

	July 1, 2007	July 1, 2006
Market Value of Assets	$1,939,134,759	$1,638,868,514
Less: Deferred Appreciation (Depreciation)	412,493,300	281,567,249
Preliminary Actuarial Value of Assets	$1,526,641,459	$1,357,301,265
Additional (write-up/down) due to corridor	24,666,348	0
Actuarial value of assets	1,551,307,807	1,357,301,265
Actuarial Value as a Percent of Market Value	80.00%	82.82%

Chart 1
Value of Assets (HPRS)

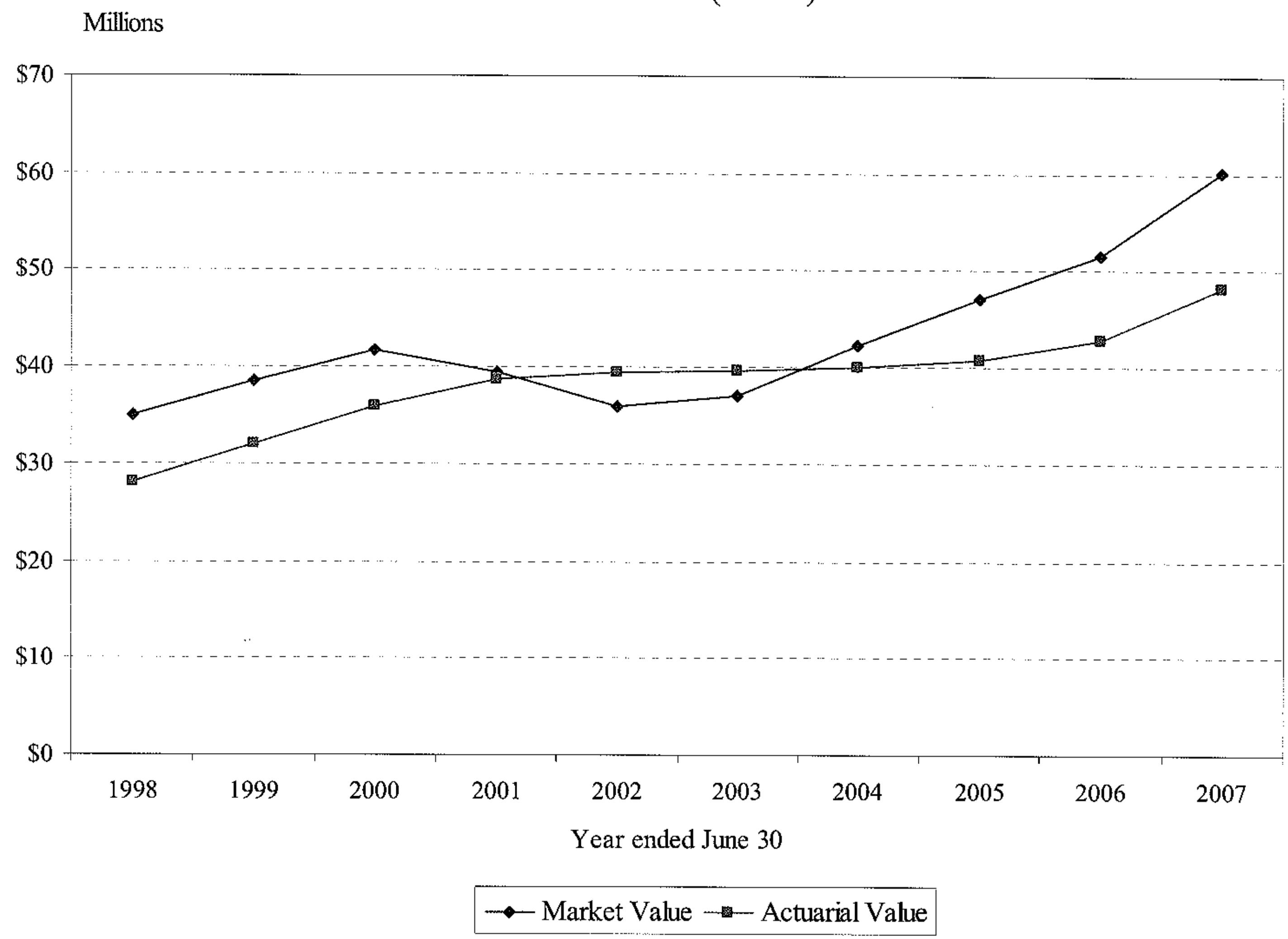


TABLE 6

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

Year Ended June 30	Net Interest and Dividend Income*		Other Income**		Total Net Investment Income	
	Amount	Yield	Amount	Yield	Amount	Yield
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
2005	29,115,600	2.38	24,276,800	1.98	53,392,400	4.36
2006	24,410,600	1.93	73,910,900	5.85	98,321,500	7.79
2007	34,727,000	2.58	178,771,700	13.26	213,498,700	15.84
Total for Last Ten Years	$326,556,100		$597,890,300		$924,446,400	
Average Yield for last Ten Years					8.79%	

* Net of investment expenses.
** Includes write-up (down).

TABLE 7

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

	July 1, 2007		July 1, 2006	
	Market Value	Actuarial Value	Market Value	Actuarial Value
PERS Main System	$1,837,958,873	$1,470,367,098	$1,553,353,995	$1,286,478,642
PERS Judges	33,487,664	26,790,131	28,113,536	23,283,465
PERS National Guard	2,360,277	1,888,222	1,912,469	1,583,896
PERS Law Enforcement with prior Main service	4,958,740	3,966,992	3,771,742	3,123,735
PERS Law Enforcement without prior Main service	159,313	127,450	88,345	73,167
PERS Combined	$1,878,924,867	$1,503,139,893	$1,587,240,087	$1,314,542,905
Highway Patrol	60,209,892	48,167,914	51,628,427	42,758,360
Total	$1,939,134,759	$1,551,307,807	$1,638,868,514	$1,357,301,265

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

TABLE 8

Summary Statement of Income and Disbursements (HPRS Fund)
for the Years Ended June 30, 2007 and 2006
(Actuarial Value Basis)

	June 30, 2007	June 30, 2006
Contribution Income:		
Employer Contributions	$ 960,487	$ 931,206
Member Contributions	592,398	574,341
Total Contribution Income	$ 1,552,885	$ 1,505,547
Less: Administrative Expenses	(19,410)	(17,470)
Net Contribution Income	$ 1,533,475	$ 1,488,077
Investment Income:		
Interest and Dividends	$ 1,634,175	$ 1,345,383
Less: Investment Expenses	(545,401)	(569,444)
Net Interest and Dividends	$ 1,088,774	$ 775,939
Write-up of Assets	5,766,081	2,459,552
Net Investment Income	$ 6,854,855	$ 3,235,491
Total Income Available for Benefit Payments and Reserves	$ 8,388,330	$ 4,723,568
Benefit Payments:		
Pension Benefits	$ (2,892,964)	$ (2,662,076)
Refunds	(85,812)	0
Total Benefit Payments	$ (2,978,776)	$ (2,662,076)
Addition to Reserve for Future Benefit Payments	$ 5,409,554	$ 2,061,492
Actuarial Value of Assets, Start of Year	42,758,360	40,696,868
Actuarial Value of Assets, End of Year	$ 48,167,914	$ 42,758,360

TABLE 9

Progress of the HPRS Fund through June 30, 2007
(Actuarial Value Basis)

Year Ended June 30	Employer Contributions	Member Contributions	Administrative Expenses	Net Investment Income	Benefit Payments	Fund at End of Year
1997	-	-	-	-	-	$24,858,460
1998	$698,132	$430,585	$12,989	$3,502,484	$1,329,615	28,147,057
1999	717,357	442,441	12,966	4,161,006	1,458,424	31,996,471
2000	741,089	457,079	13,821	4,331,244	1,635,596	35,876,466
2001	788,125	486,332	14,482	3,321,908	1,671,297	38,787,052
2002	814,035	501,850	15,919	1,467,287	2,050,607	39,503,698
2003	833,074	513,812	16,469	792,875	2,063,483	39,563,507
2004	844,241	520,700	16,562	1,268,080	2,222,645	39,957,321
2005	867,803	535,233	16,058	1,799,734	2,447,165	40,696,868
2006	931,206	574,341	17,470	3,235,491	2,662,076	42,758,360
2007	960,487	592,398	19,410	6,854,855	2,978,776	48,167,914
Total for last ten years	$8,195,549	$5,054,771	$156,146	$30,734,964	$20,519,684	

Chart 2
Income and Disbursements for HPRS

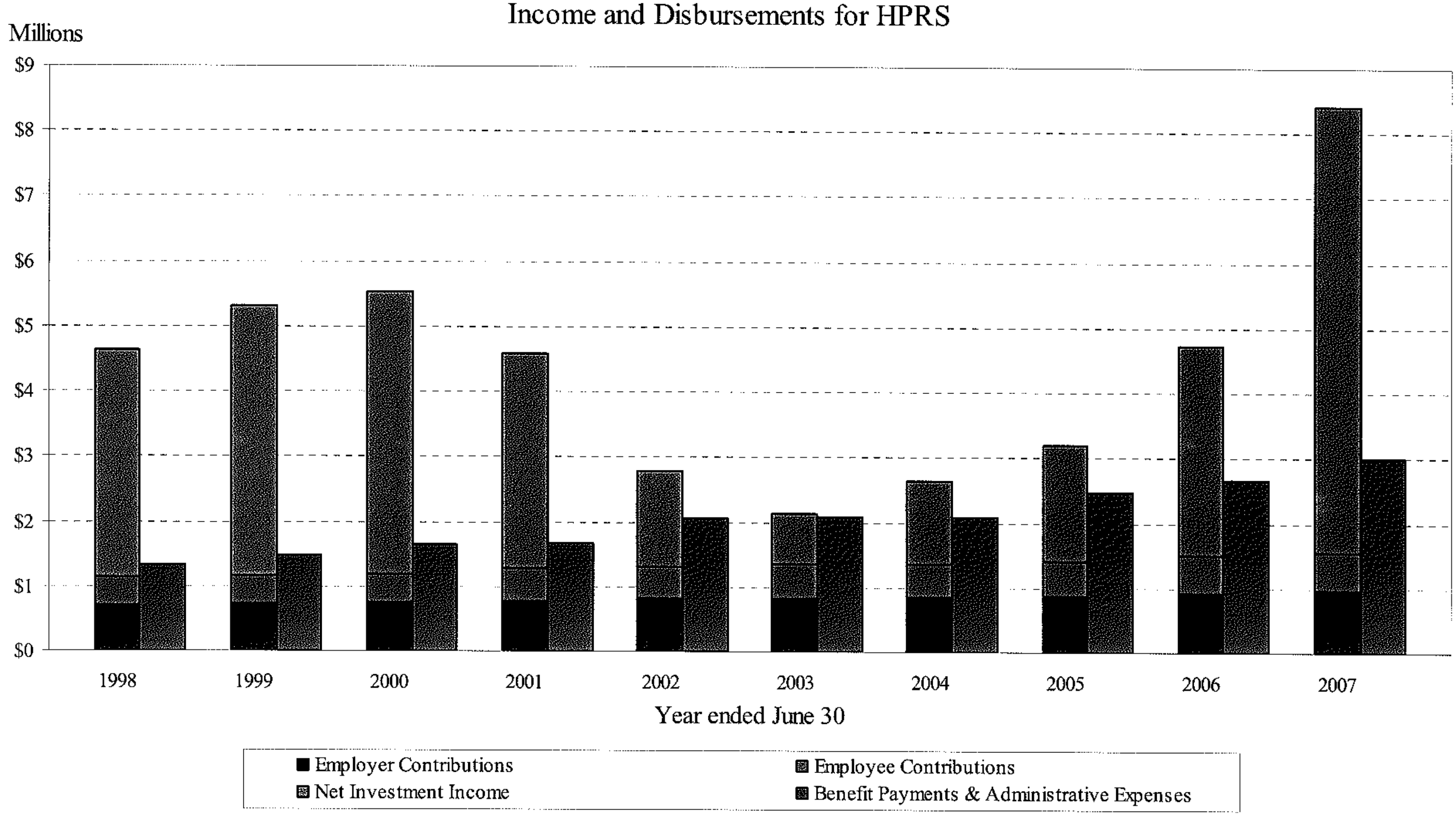
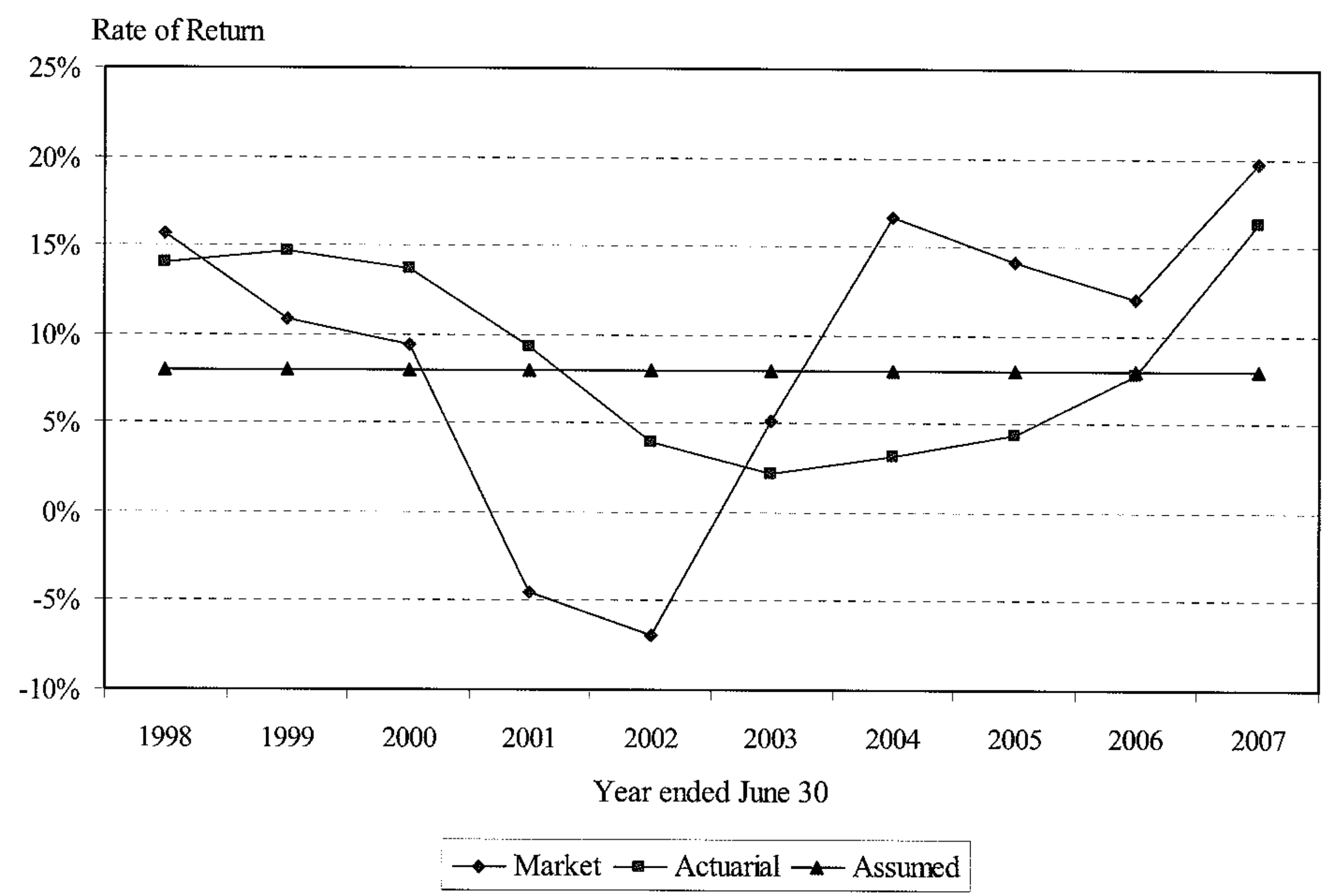


Chart 3

Investment Returns

(PERS and HPRS Combined)



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 period of 20 years with increasing payments. The calculated employer contribution requirements on this basis for fiscal year 2007-2008 are shown below as a dollar amount and as a percentage of the covered payroll of contributing participants.

The components of the actuarial contribution requirement are as follows:

	Amount for 2007- 2008	Percentage of Payroll	Cost per Participant
Total normal cost	$ 1,304,356	21.28%	$ 9,807
Less: member contributions	(631,274)	(10.30)	(4,746)
Net employer normal cost	$ 673,082	10.98%	$ 5,061
Administrative expense allowance	16,000	0.26	120
Amortization payment	235,096	3.84	1,768
Total employer contribution	$ 924,178	15.08%	$ 6,949

Covered payroll is $6,128,867 for 133 active members.

The statutory contribution rate is 16.70% of payroll. Hence the plan has a margin of 1.62% of payroll.

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

	As a Percentage of Payroll
Employer cost rate as of July 1, 2006	19.03%
Plan experience during the year	(3.99)
Contribution shortfall	0.18
Effect of maintaining 20-year amortization schedule	(0.14)
Employer cost rate as of July 1, 2007	15.08%

The development of the unfunded/(surplus) actuarial accrued liability for the year ended June 30, 2007, is as follows:

1. Unfunded/(Surplus) actuarial accrued liability as of July 1, 2006		$6,368,686
2. Normal cost at beginning of year		1,162,468
3. Contributions		(1,552,885)
4. Administrative expenses		16,000
5. Interest		541,004
6. Expected unfunded/(surplus) actuarial accrued liability - equals sum of (1) through (5)		$6,535,273
7. Changes due to:		
(a) Change in actuarial assumptions	$0	
(b) (Gain)/Loss on investments	(3,491,998)	
(c) (Gain)/Loss on demographics	321,785	
(d) (Gain)/Loss on administrative expenses	3,544	
(e) Total changes – equals (7a + 7b + 7c + 7d)		(3,166,669)
8. Unfunded/(Surplus) actuarial accrued liability as of July 1, 2007 - equals (6) plus (7c)		$3,368,604

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 is the retirement plan. 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 actuarial value) was 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 Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans. GASB Statement Number 25 allows the System to disclose its liabilities and funding status on the same basis 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 10. These ratios are graphed in Chart 4 on page 23. They show that, on a funding basis, the funded ratio has generally improved during the beginning of this period, but deteriorated in recent years.

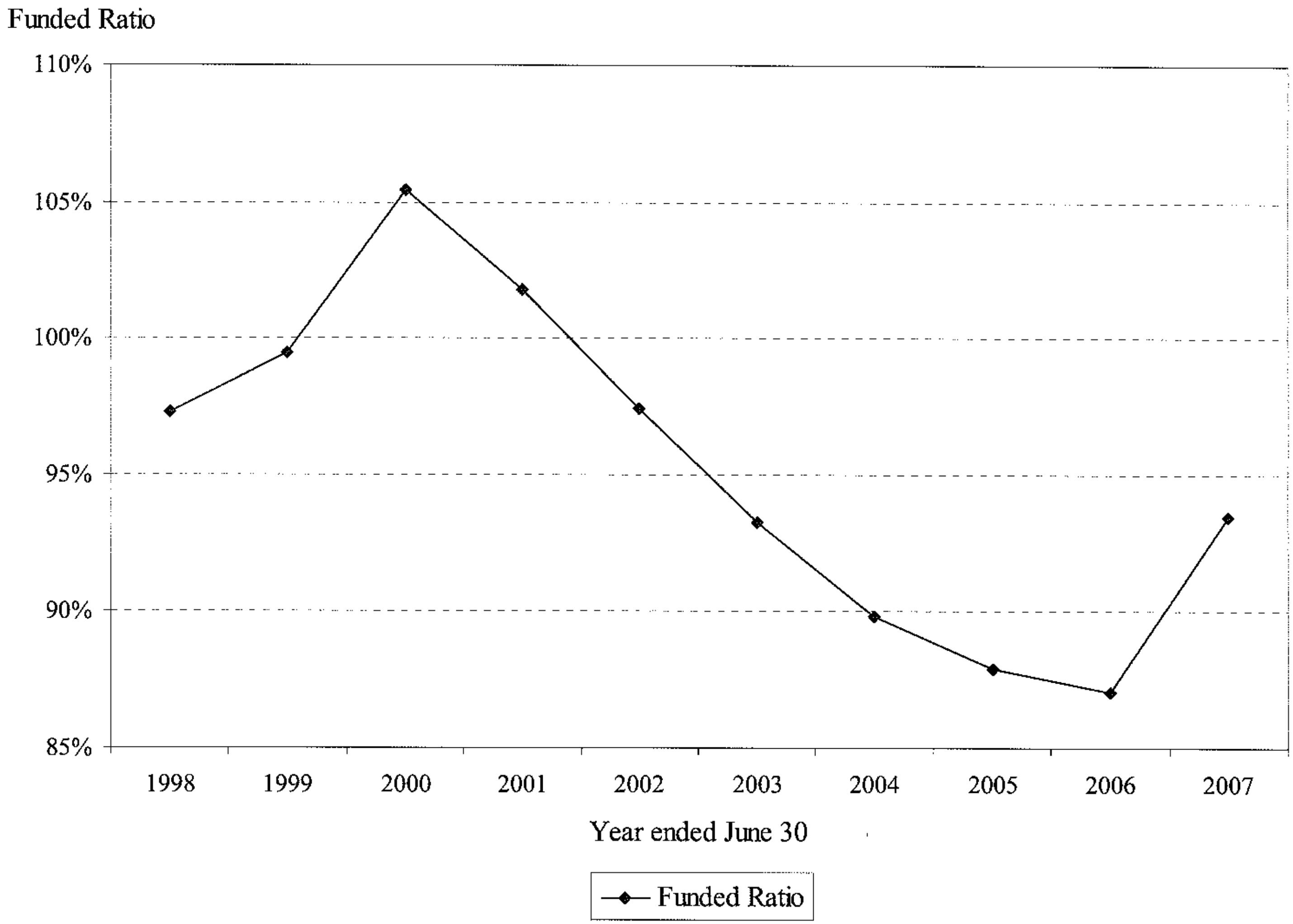
Funded ratios change over time due to several factors. These factors include the level of contributions, actual experience (including investment returns), plan amendments, and changes in actuarial assumptions. In particular, we observe that in years when benefit improvements were effective, 1997 and 2001, the funded ratio was lower than what it would have been otherwise.

TABLE 10

Funded Ratio

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
1998	$28,925,500	$28,147,100	97.3%
1999	32,153,000	31,996,500	99.5
2000	34,034,200	35,876,500	105.4
2001	38,112,100	38,787,100	101.8
2002	40,542,300	39,503,700	97.4
2003	42,417,300	39,563,500	93.3
2004	44,468,700	39,957,300	89.9
2005	46,284,400	40,696,900	87.9
2006	49,127,000	42,758,400	87.0
2007	51,536,500	48,167,900	93.5

Chart 4
Funded Ratio (HPRS)



VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

The actuarial assumptions and cost methods used in the actuarial valuation as of July 1, 2007 are summarized below.

Investment Yield

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 System 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.

During each of the first five years of service, the assumed salary increase is 7.00% per year. After five years of service, salary increases are age-related. Sample age-related salary increases are as follows:

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

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 which, 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 that can result in lowering future employer costs.

Inflation

The assumed inflation rate is 3.50% per annum.

Payroll Growth

The assumed payroll growth rate is 4.50% per annum.

Age at Retirement

Retirement rates reflect the expected percentage of members who will retire at each age. From ages 50 to 54, 50% of the members who are not eligible for early retirement under the Rule of 80 are assumed to retire each year while 100% of the members who are eligible for the Rule of 80 are assumed to retire each year. One hundred percent of members aged 55 and over are assumed to retire.

Inactive vested members eligible for deferred benefits are assumed to retire at age 55.

Withdrawal Rates Before Retirement

Withdrawal rates used in this actuarial valuation are intended to reflect the percentage of employees who will leave service at each age prior to retirement for reasons other than death or disability.

The assumed withdrawal percentages are 5% per year for the first five years of a member's service. Thereafter, rates vary according to the age of the member. Two percent of members are assumed to terminate at each age under 35. One percent are assumed to terminate at each age 35 and over.

Disability Incidence Rates Before Retirement

Disability rates used in this actuarial valuation are intended to reflect the percentage of employees who will leave service at each age prior to retirement due to disability. The assumed disability incidence rates increase from 0.05% at age 25 to 0.55% at age 55.

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 Members			
	Males		Females	
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	5.7	25.2	2.5	30.3
60	8.4	21.0	4.2	25.7
65	13.9	17.0	7.1	21.3
70	24.8	13.3	12.4	17.2
75	40.4	10.2	24.0	13.4
80	67.1	7.6	42.9	10.2
85	106.0	5.6	69.9	7.6

Administrative Expenses

Annual administrative expenses are assumed to be $16,000.

Marital Status for Non-Retired Members

At death, 90% of non-retired members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

Valuation of Assets

Investments are carried at an adjusted market value. 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 will 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 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, with the normal cost 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 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 4.50% per year.

October 11, 2007

NORTH DAKOTA HIGHWAY PATROLMEN'S RETIREMENT SYSTEM

Actuarial Valuation Certificate

This is to certify that we have prepared an Actuarial Valuation of the System as of July 1, 2007 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.

Mike Moehle

Michael Moehle, FSA, MAAA, EA
Vice President and Consulting Actuary

Theodore J. Shively

Theodore J. Shively, ASA, MAAA, EA
Vice President and Actuary

Kurt Schneider

Kurt Schneider, ASA, MAAA, EA
Associate Actuary

EXHIBIT I

ACTUARIAL VALUATION RESULTS

1.	Actuarial accrued liability on July 1, 2007:		
	a. Active members	$20,998,857	
	b. Retired members and beneficiaries	29,906,244	
	c. Inactive non-retired members	631,417	
	d. Total		$51,536,518
2.	Assets at actuarial value ($60,209,892 at market value)		48,167,914
3.	Unfunded (Surplus) actuarial accrued liability - equals (1) minus (2)		3,368,604
4.	Member and employer normal cost for ensuing year*		1,304,356
5.	Estimated annual salaries of covered members		6,128,867
6.	Member normal cost equals - 10.3% of (5)*		631,274
7.	Employer normal cost for ensuing year - equals (4) minus (6)		673,082
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		235,096
9.	Administrative expenses		16,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)		924,178
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)		15.08%

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* 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, set back one year for males (not set back for females).

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

2. **Annual Withdrawal Rates:**

First five years of service: 5% per year.

After five years of service:

Under age 35: 2% at each age.

Age 35 and older: 1% at each age.

Withdrawal rates end upon eligibility for early retirement (age 50 and 5 years of service).

3. **Disability Incidence Rates:**

Age based rates. Sample rates:

Age	Rate
25	0.05%
30	0.12
35	0.20
40	0.30
45	0.37
50	0.38
55	0.55

4. **Retirement Rates:**

The following annual rates apply for active members:

Age	Eligible for Rule of 80	Not Eligible for Rule of 80
50 - 54	100%	50%
55+	100	100

Inactive vested members eligible for deferred benefits are assumed to retire at age 55.

EXHIBIT II (continued)

5. **Interest Rate:**

   8.00% per annum, net of investment expenses.

6. **Annual Administrative Expenses:**

   $16,000.

7. **Salary Scale:**

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

   Five or more years of service (for selected ages):

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

8. **Inflation:**

   3.50% per annum.

9. **Payroll Growth:**

   4.50% per annum.

10. **Marital Status:**

    At death, 90% of all members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

11. **Workers' Compensation:**

    None assumed for disability benefit offset.

12. **Indexing for Benefits of Inactive Vested Members:**

    5.00% per annum.

EXHIBIT II (continued)

13. Split Service:

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

14. Transfers to Main System:

Annual withdrawal, disability incidence and retirement rate assumptions for members who have transferred to the Main System follow those specified in the Main System, and are applied to the benefits held in the HPRS.

15. Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. The unfunded actuarial accrued liability is amortized in installments assuming a 4.50% payroll growth assumption and an open 20-year period.

16. Actuarial Value of Assets:

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

EXHIBIT III

CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS

- There have been no changes in actuarial assumptions since the last valuation.

EXHIBIT IV

CHANGES IN PLAN PROVISIONS

There have been no changes in plan provisions since the last valuation.

EXHIBIT V

SUMMARY OF PLAN PROVISIONS

This exhibit summarizes the major benefit provisions of the North Dakota Highway Patrolmen's 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:

   Attainment of age 55 with at least 10 years of eligible employment or with age plus service equal to at least 80 (Rule of 80).

   Benefit:

   3.60% of final average salary for each of the first 25 years of service plus 1.75% of final average salary for service in excess of 25 years.

2. **Early Service Retirement:**

   Eligibility:

   Attainment of age 50 with 10 years of eligible employment.

   Benefit:

   The Normal Service Retirement Benefit as determined above. A benefit that begins before age 55 (or Rule of 80, if earlier) is reduced by one-half of one percent for each month before age 55.

3. **Disability Benefit:**

   Eligibility:

   Accumulation of six months of service and inability to engage in substantial gainful activity.

   Benefit:

   70% of the member's final average salary at disability minus workers' compensation, with a minimum of $100 per month.

4. Deferred Retirement:

Eligibility:

Ten years of eligible employment.

Benefit:

The Normal Service Retirement Benefit payable at age 55 or the Rule of 80, if earlier. Vested benefits are indexed at a rate set by the Retirement Board based on the increase in final average salary from date of termination to benefit commencement date, as follows:

Year Beginning	Average Monthly Increase	Three-Year Average Increase	Cumulative Salary Increase
7/1/1994	3.00%	3.01%	3.01%
7/1/1995	2.00	2.86	5.95
7/1/1996	2.00	2.33	8.42
7/1/1997	3.00	2.33	10.95
7/1/1998	1.80	2.27	13.47
7/1/1999	1.26	2.02	15.76
7/1/2000	2.00	1.69	17.71
7/1/2001	1.81	1.69	19.70
7/1/2002	1.73	1.85	21.91
7/1/2003	0.00	1.18	23.35
7/1/2004	0.00	0.58	24.06

Reduced early retirement benefits can be elected upon attainment of age 50.

5. Pre-Retirement Death Benefits:

Eligibility:

Ten years of eligible employment.

Benefit:

One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- Monthly payment of the member's accrued benefit for 60 months to the surviving spouse.
- 50% of the member's accrued benefit (not reduced on account of age) for the surviving spouse's lifetime.

Eligibility:

Less than 10 years of service nor a surviving spouse.

Benefit:

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

6. <u>Normal and Optional Forms of Payment</u>:

Normal form of payment:

Monthly benefit for life with 50% of the benefit continuing for the life of the surviving spouse (if any).

Optional forms of payment:

- 100% joint and survivor annuity, ten-year certain and life annuity, and twenty-year certain and life annuity.
- A partial lump sum payment in addition to the one of the annuity options above.

7. <u>Final Average Salary</u>:

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

8. <u>Contributions</u>:

Members:

10.30% of monthly salary.

State of North Dakota:

16.70% of the monthly salary for each participating member.

Member's contributions earn interest at an annual rate of 7.50% compounded monthly.

RETIREMENT PLAN FOR EMPLOYEES OF JOB SERVICE NORTH DAKOTA

Actuarial Valuation Report as of July 1, 2007

*SEGAL

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October 11, 2007

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

Members of the Board:

We are pleased to submit our report on the actuarial valuation of the Retirement Plan for Employees of Job Service North Dakota as of July 1, 2007. The report includes an analysis of last year's actuarial experience as well as the contribution requirements for the year beginning July 1, 2007.

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; and

- Prepared in accordance with standards of practice prescribed by the Actuarial Standards Board.

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.

We would be pleased to answer any questions you may have regarding the report.

Sincerely,

Mike Moehle

Michael Moehle, FSA, MAAA, EA
Vice President and Consultant Actuary

Theodore J. Shively

Theodore J. Shively, ASA, MAAA, EA
Vice President and Actuary

Kurt Schneider

Kurt Schneider, ASA, MAAA, EA
Associate Actuary

KT/hy

cc: Sparb Collins

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I. INTRODUCTION AND SUMMARY

This report presents the results of the actuarial valuation of the Retirement Plan for Employees of Job Service North Dakota as of July 1, 2007.

The following table is a summary of significant results of this year's valuation compared with the results of the last valuation.

Valuation Results	July 1, 2007	July 1, 2006
Scheduled contribution at end of year	$0	$0
Contribution as a percentage of payroll	0.00%	0.00%
Total payroll of employees included in cost calculations	$1,843,140	$1,922,664
Outstanding balance of frozen initial liability	$0	$0
Amortization of frozen initial liability (6 years remaining as of July 1, 2007)	$0	$0
Normal cost	$0	$0
Actuarial present value of projected benefits	$71,421,979	$69,967,001
Actuarial value of assets	$75,749,846	$70,628,705
Market value of assets	$94,687,307	$84,359,650

Effective July 1, 1999, the "scheduled contribution" will be zero as long as the plan's actuarial value of assets exceeds the actuarial present value of projected benefits. If, in the future, the liabilities of the plan exceed its assets, a "scheduled contribution" will be determined based on the funding policy adopted by the Employer.

There were no changes to the plan provisions or actuarial assumptions since the prior valuation.

II. VALUATION RESULTS

The valuation was made with respect to the following data supplied to us by the Retirement Office staff.

1.	Employees active as of July 1, 2007, with total annual salaries of $1,843,140.		
	a.	Fully vested	40
	b.	Not vested	0
	c.	Total	40
2.	Employees inactive as of July 1, 2007 with vested rights		5
3.	Pensioners (including disableds) and beneficiaries as of July 1, 2007		118
4.	Pensioners and beneficiaries receiving annuities from The Travelers as of July 1, 2007		102
5.	Total Plan participants as of July 1, 2007		265

The actuarial liabilities as of the valuation date are as follows:

1.	Actuarial present value of benefits:		
	a.	Active employees	$17,553,550
	b.	Inactive vested employees not in pay status	269,199
	c.	Pensioners (including disableds) and beneficiaries*	53,902,110
	d.	Total	$71,724,859
2.	Actuarial value of assets ($94,687,307 at market value)		75,749,846
3.	Outstanding balance as of July 1, 2007 of frozen initial liability		0
4.	Actuarial present value of future normal costs (item 1 – item 2 – item 3, not less than $0)		$0
5.	Actuarial present value of future salaries		$7,374,292
6.	Normal cost percentage (item 4 divided by item 5)		0.00%
7.	Total salaries of employees below the assumed retirement age		$1,843,140
8.	Normal cost (item 6 x item 7)		$0

* *Including value of Cost-of-Living adjustments (COLAs) for pensioners with annuities from The Travelers.*

There have been no changes in assumptions since the previous valuation. The benefit provisions are the same as those in the preceding valuation.

Actuarial Experience

Since July 1, 2006, there was a net actuarial gain which is comprised of a demographic loss of less than $0.1 million and an asset gain of $3.2 million. An analysis of experience in key areas for the year ended June 30, 2007 follows.

Salary Increases

The average salary increase for participants as of July 1, 2007 who were included in the last valuation was 5.7% compared to the 5.0% salary scale assumption. The result is an actuarial loss.

Post-Retirement Cost-of-Living Adjustment (COLA)

The average COLA for participants and beneficiaries paid by the retirement plan as of July 1, 2007 who were included in the last valuation was 3.3% compared to the 5.0% COLA assumption. The result is an actuarial gain.

Rate of Return

The investment rate of return on an actuarial basis was approximately 12.16% for the year ended June 30, 2007. This return is higher than the assumed rate of return of 7.5%, resulting in an actuarial gain. The rate of return on a market value basis was 16.44%.

Table 1 summarizes demographic characteristics for plan participants.
Table 2 presents a distribution of active participants by age and credited service.
Table 3 presents a reconciliation of participant data.
Table 4 summarizes the changes in plan net assets.
Table 5 is a summary of plan assets on a market basis.
Table 6 shows the determination of the actuarial value of assets.
Table 7 shows the development of the NPO and ARC pursuant to GASB 27.
Table 8 shows a Schedule of Funding Progress pursuant to GASB 50.

Table 1

Plan Coverage and Selected Data
This Year and Preceding Year

Category	July 1, 2007	July 1, 2006	Percent Change
Active participants:			
Number	40	44	(9.1)%
Average age	55.5	55.1	--
Average service	31.6	30.5	--
Payroll	$1,843,140	$1,922,664	(4.1)
Average pay	$46,079	$43,697	5.5
Inactive participants with rights to immediate or deferred pension	5	5	- -
Pensioners (including disableds) and beneficiaries:			
Number paid by retirement plan	118	115	2.6
Total annual benefits	$2,907,865	$2,762,934	5.2
Average annual benefit	$24,643	$24,026	2.6
Number of Travelers annuitants	102	106	(3.8)
Total annual benefits from plan (COLAs)	$551,283	$509,631	8.2
Average annual benefit from plan (COLAs)	$5,405	$4,808	12.4

Table 2

Active Employees Included in the July 1, 2007 Valuation by Age and Credited Service

		Years of Credited Service			
Age	**Total**	**0 - 24**	**25 - 29**	**30 - 34**	**35 and Over**
Total	40	-	11	26	3
45 – 49	1	-	1	-	-
50 – 54	20	-	5	14	1
55 – 59	16	-	4	11	1
60 & over	3	-	1	1	1

Table 3

Reconciliation of Participant Data

	Active Participants	Vested Former Participants	Pay Status Participants Paid From Plan Assets	Pay Status Participants Paid From The Travelers	Total
Number as of July 1, 2006	44	5	115	106	270
Retirements	4	0	4	0	0
Beneficiaries	0	0	0	0	0
Certain period expired	0	0	0	0	0
Died with beneficiary	0	0	0	0	0
Died without beneficiary	0	0	-1	-4	-5
Number as of July 1, 2007	40	5	118	102	265

Table 4

Statement of Changes in Plan Net Assets (Market Value)

				July 1, 2007	July 1, 2006
1.	**Additions**				
	(a)	Contributions		$132,564	$150,633
	(b)	Investment Income			
		(i)	Interest and Dividends	$2,325,117	$1,916,260
		(ii)	Net Appreciation/(Depreciation)	11,691,612	4,905,261
		(iii)	Net Securities Lending Income	18,666	17,719
		(iv)	Total Investment Income	$14,035,395	$6,839,240
		(v)	Less Investment Expenses	(416,599)	(1,073,229)
		(vi)	Net Investment Income	$13,618,796	$5,766,011
	(c)	Repurchase Service Credit		$0	$25,927
	(d)	Total Additions		$13,751,360	$5,942,571
2.	**Deductions**				
	(a)	Benefit Payments		$(3,400,892)	$(3,062,585)
	(b)	Administrative Expenses		(22,811)	(29,335)
	(c)	Total Deductions		$(3,423,703)	$(3,091,920)
3.	**Net Increase**			$10,327,657	$2,850,651
4.	**Net Assets Held in Trust for Pension Benefits**				
	(a)	**Beginning of Year**		**$84,359,650**	**$81,508,999**
	(b)	**End of Year**		**$94,687,307**	**$84,359,650**

Table 5

Statement of Plan Net Assets

				July 1, 2007	July 1, 2006
1.	**Assets**				
	(a)	Cash and Cash Equivalents		$320,008	$100,613
	(b)	Receivables			
		(i)	Contributions	$10,551	$12,133
		(ii)	Interest)	301,077	241,253
		(iii)	Due from Fiduciary Funds	0	17,474
		(iv)	Total Receivables	$311,628	$270,860
	(c)	Investments, At Fair Value,			
		(i)	Equities	$38,820,490	$33,697,071
		(ii)	Fixed Income	55,378,242	50,348,223
		(iii)	Securities Lending Collateral (SIB)	12,773,349	12,162,923
		(iv)	Total Investments	$106,972,081	$96,208,217
	(d)	Total Assets		$107,603,717	$96,579,690
2.	**Liabilities**				
	(a)	Accounts Payable		$(126,765)	$(49,329)
	(b)	Due to Fiduciary Funds		(14,432)	(3,750)
	(c)	Due to Proprietary Funds		(1,864)	(2,025)
	(d)	Due to Other State Agencies		0	(2,013)
	(e)	Securities Lending Collateral (SIB)		(12,773,349)	(12,162,923)
	(f)	Total Liabilities		$(12,916,410)	$(12,220,040)
3.	**Net Assets for Pension Benefits**			**$94,687,307**	**$84,359,650**

Table 6

Determination of the Actuarial Value of Assets as of July 1, 2007

1.	Actuarial Value of Assets as of July 1, 2006	$70,628,705
2.	Increases During the Year	
	(a) Contributions	$132,564
3.	Decreases During the Year	
	(a) Benefit Payments	$(3,400,892)
	(b) Administrative Expenses	(22,811)
	(c) Investment Expenses	(416,599)
	(d) Total Decreases During the Year	$(3,840,302)
4.	Actual Return – Interest and Dividends	$2,325,117
5.	Preliminary Actuarial Value at End of Year [(1) + (2) + (3) + (4)]	$69,246,084
6.	Market Value at End of Year	$94,687,307
7.	Adjustment Toward Market Value (20% of [(6) – (5)])	$5,088,245
8.	Adjustment to be Within 20% of Market Value	$1,415,517
9.	Actuarial Value of Assets as of July 1, 2007 [(5) + (7) + (8)]	$75,749,846
10.	Actuarial Value as a Percentage of Market Value [(9) / (6)]	80.0%

Table 7

Development of the Net Pension Obligation (NPO) and the Annual Required Contribution (ARC) Pursuant to GASB 27

Year Ended	Employer Annual Required Contribution (a)	Employer Amount Contributed (b)	Interest on NPO* (h) x 7.5% (c)	ARC Adjustment* (h) / (e) (d)	Amortization Factor** (e)	Pension Cost (a) + (c) – (d) (f)	Change in NPO (f) – (b) (g)	NPO Balance NPO + (g) (h)
06/30/1998	$-	$577,936	$ -	$ -	12.1584	$ -	$(577,936)	$(577,936)
06/30/1999	-	1,110,818	(46,235)	(47,534)	12.1584	1,299	(1,109,519)	(1,687,455)
06/30/2000	-	-	(134,996)	(138,789)	12.1584	3,793	3,793	(1,683,662)
06/30/2001	-	-	(134,693)	(138,477)	12.1584	3,784	3,784	(1,679,878)
06/30/2007	-	-	(134,390)	(138,166)	12.1584	3,776	3,776	(1,676,102)
06/30/2003	-	-	(134,088)	(137,855)	12.1584	3,767	3,767	(1,672,335)
06/30/2004	-	-	(133,787)	(137,546)	12.1584	3,759	3,759	(1,668,576)
06/30/2005	-	-	(133,486)	(137,236)	12.1584	3,750	3,750	(1,664,826)
06/30/2006	-	-	(133,186)	(136,928)	12.1584	3,742	3,742	(1,661,084)
06/30/2007	-	-	(124,581)	(130,833)	12.6962	6,252	6,252	(1,654,832)

**Not applicable for the year ending June 30, 1998, since NPO as of July 1,1997 is presumed to be $0.*
***Interest is 8% through June 30, 2006 and 7.5% thereafter. Amortization period is 30 years.*

Table 8

Schedule of Funding Progress Pursuant to GASB 50*

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll** [(b) – (a)] / (c)
07/01/2007	$75,749,846	$70,740,512	$(5,009,334)	107.08%	$1,843,140	0.0%

**Starting in 2007, the funded ratio will be required using liabilities calculated under the entry age normal cost method.*
***Not less than zero.*

III. ACTUARIAL METHODS AND ACTUARIAL ASSUMPTIONS

Actuarial Cost Method

There is a wide range of funding methods that are considered acceptable by the actuarial profession, which are recognized by accountants, and that meet government standards. The Frozen Initial Liability Actuarial Cost Method is the method currently used for the Retirement Plan for Employees of Job Service North Dakota.

The "annual contribution" under this method is the normal cost plus the payment required to amortize the unfunded initial actuarial accrued liability over a selected period of years. The normal cost is determined by calculating the total value of all future benefits, subtracting the outstanding balance (if any) of the unfunded initial actuarial accrued liability, subtracting the actuarial value of assets, and determining payments (not less than zero) that are a level percent of pay over the future working lifetime of all participants. In the absence of an unfunded initial actuarial accrued liability, The Frozen Initial Liability Actuarial Cost Method is the same as the Aggregate Cost Method.

The "scheduled contribution" will be determined when the plan is not in surplus and will be based on a funding policy adopted by the Employer.

Asset Valuation Method

The asset value indicates the portion of the benefits already funded. The method used to determine this value is called the actuarial asset valuation method. The actuarial asset valuation method is as follows:

The asset value is adjusted toward market value by adding to the "preliminary asset value", 20% of the difference between the market value and the preliminary asset value. The preliminary asset value is the actuarial asset value at the beginning of the year plus net new money. Net new money is the sum of contributions, dividends, and interest, less the sum of benefit payments, administrative expenses and investment fees. If necessary, the actuarial value is further adjusted to be within 20% of market value.

Actuarial Assumptions

Mortality tables:

Healthy: 1994 Group Annuity Mortality Table (sample rates below).

Disabled: 1983 Railroad Retirement Board Disabled Life Mortality Table.

Disability incidence: Sample rates shown below.

Withdrawal rates: Sample rates shown below.

	Rates (%)			
	Mortality		Disability Incidence	Withdrawal
Age	Male	Female		
20	0.05	0.03	0.06	5.44
25	0.07	0.03	0.09	5.29
30	0.08	0.04	0.11	5.07
35	0.09	0.05	0.15	4.70
40	0.11	0.07	0.22	4.19
45	0.16	0.10	0.36	3.54
50	0.26	0.14	0.61	2.48
55	0.44	0.23	1.01	0.94
60	0.80	0.44	1.63	0.09

Withdrawal rates end when first eligible for the earlier of optional or normal retirement.

Retirement age: 75% of active participants are assumed to retire when first eligible for optional retirement, and the remaining participants retire at normal retirement. If currently older than first eligible optional retirement age, retirement assumed to occur at normal retirement, or current age, if older.

100% of inactive vested participants are assumed to retire at first optional retirement age.

Salary scale:	5.0% per year.
Post-retirement cost-of-living adjustment:	5.0% per year.
Percent married:	85% of all active and inactive vested participants are assumed to be married.
Age of spouse:	Females are assumed to be four years younger than males.
Rate of return:	7.5% per year, compounded annually, net of investment and administrative expenses.
Future benefit accruals:	One year of credited service per year per active employee included in the valuation.

IV. SUMMARY OF PLAN PROVISIONS

This section summarizes the major provisions of the plan as included in the valuation. It is not intended to be, nor should it be, interpreted as a complete description of all plan provisions.

Normal retirement

Age requirement:	65.
Service requirement:	None.
Benefit:	Average monthly earnings multiplied by the sum of: a. 1.50% times credited service up to five years, plus b. 1.75% times credited service between six and ten years, plus c. 2.00% times credited service in excess of ten years. Average monthly earnings - monthly average earnings during the highest three consecutive years of employment.

Optional retirement

Age and service requirements:	Age 62 with five years of credited service, or Age 60 with twenty years of credited service, or Age 55 with thirty years of credited service.
Benefit:	Accrued normal retirement benefit.

Early retirement

Age requirement:	Ten years before normal or optional retirement age.
Service requirement:	Same as optional retirement.
Benefit:	Accrued normal retirement benefit, reduced if payments begin before normal or optional retirement.

Disability

Age requirement:	None.
Service requirement:	Five years of credited service.
Benefit:	Greater of accrued normal retirement benefit or 40% of average monthly earnings.

Vesting

Age requirement:	None.
Service requirement:	Five years of credited service.
Benefit:	Accrued normal retirement benefit payable at normal or optional retirement. After attainment of early retirement age, reduced benefits may be paid. Employees who meet the requirements for a vested benefit may elect to receive a return of their accumulated employee contributions (including interest at 4% per year) in lieu of all other benefits under the plan.

Return of accumulated employee contributions	Employees who do not meet the requirements for a vested benefit will receive a return of their accumulated employee contributions (including interest at 4% per year).

Pre-retirement death benefits

Married participants

Surviving spouse's benefit:

Age requirement:	None.
Service requirement:	None.
Benefit:	55% of the greater of (a) or (b). (a) Accrued normal retirement benefit. (b) The lesser of (1) or (2). (1) 40% of average monthly earnings. (2) Normal retirement benefit based on credited service to age 60.

Children's benefit: Provided for children under age 18 (age 22 if a full-time student) - note: the actuarial valuation does not consider benefits for expected surviving children.

Single participants with no eligible children

120 payment guarantee:

Age requirement:	None.
Service requirement:	Five years of credited service.
Benefit:	Accrued normal retirement benefit payable for 120 months. Not payable if surviving spouse or children's benefit is payable.

Lump sum benefit:

Age requirement:	None.
Service requirement:	None.
Benefit:	Accumulated employee contributions (including interest at 4% per year). Not payable if the surviving spouse, children's benefit or 120 payment guarantee is in effect.

Post-retirement death benefits	Based on form of payment elected by the pensioner.
Post-retirement cost-of-living adjustment	Based on the Consumer Price Index.
Participation	Plan participant before October 1, 1980.
Credited service	Monthly salaried employment in a probationary or permanent status including only: service for which contributions were made (including purchased service), eligible military service and unused sick leave.
Contribution rate	Employee: 7% of average monthly earnings (4% picked up by employer). Employer: remaining scheduled cost, if any.

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