

**NORTH DAKOTA PUBLIC EMPLOYEES
RETIREMENT SYSTEM**

Actuarial Valuation Report as of July 1, 2010

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November 1, 2010

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, 2010.

The census information on which our calculations are based and the financial information were provided by the Retirement Office staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We are members of the American Academy of Actuaries, and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

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

Sincerely,

Brad Ramirez, FSA, MAAA, FCA, EA
Consulting Actuary

John W. Monroe, ASA, MAAA, EA
Vice President & Associate Actuary

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TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. HIGHLIGHTS	2
III. MEMBER CHARACTERISTICS	5
IV. BENEFIT EXPERIENCE	8
V. ASSETS	9
VI. RESULTS OF ACTUARIAL VALUATION	20
VII. FUNDING STATUS	28
VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS	31
APPENDICES	
A. ACTUARIAL VALUATION CERTIFICATE	A-1
B. CENSUS TABLES	B-1

I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2010. 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, 2010;
3. The assets of the System as of June 30, 2010; 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

- For the PERS Fund overall, the present rate of contributions is not sufficient to meet the actuarially determined requirement for 2010-2011, 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 (or approved) contribution rates.
- The employer actuarial contribution requirements for 2010-2011 are as follows:

	Amount	Percentage of Payroll	Statutory/ Approved Rate
Main System	\$80,793,535	10.76%	4.12%
Judges	801,473	14.10	14.52
National Guard	88,139	7.00	6.50
Law Enforcement with prior Main service	1,140,925	10.80	8.31
Law Enforcement without prior Main service	85,768	7.53	6.43

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

	2010-2011	2009-2010
Main System	10.76%	7.74%
Judges	14.10	10.48
National Guard	7.00	3.71
Law Enforcement with prior Main service	10.80	9.11
Law Enforcement without prior Main service	7.53	6.83

- The Main System statutory rate of 4.12% of payroll is less than the actuarially determined rate of 10.76% of payroll by 6.64% of payroll. Last year, the Main System statutory rate was less than the actuarially determined rate by 3.62% of payroll. The increase in the contribution rate deficit this year was primarily due to an investment loss and changes in actuarial assumptions as outlined below.

- The return on the market value of assets for 2009-2010 for the PERS Fund was 13.25%, and was -24.04% for the preceding year.
- The return on the actuarial value of assets for 2009-2010 for the PERS Fund was 1.49% compared to the investment return assumption of 8.00%. As a result, the PERS Fund experienced an investment loss on an actuarial value basis of approximately \$104.6 million.
- The ratio of the actuarial value of assets to the market value of assets for the PERS Fund is 110.0%. Last year, this ratio was 122.5%.
- A comparison of this year's funded ratio for PERS to the prior year is as follows:

	July 1, 2010	July 1, 2009
Actuarial Value of Assets	\$1,621,723,099	\$1,617,147,801
Actuarial Accrued Liability	2,208,386,120	1,901,200,756
Funded Ratio	73.4%	85.1%

- The unrecognized investment losses represent about 10% of the PERS Fund market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$148 million market losses is expected to have a significant impact on the System's future funded ratio and actuarial contribution requirement. This potential impact may be illustrated as follows:
 - If the deferred losses were recognized immediately in the actuarial value assets, the funded percentage would decrease from 73.4% to 66.8%.
 - If the deferred losses were recognized immediately in the actuarial value of assets, the actuarial contribution requirement would increase as follows:

	2010-2011 Actuarial Contribution Rate	2010-2011 Rate Reflecting Deferred Losses
Main System	10.76%	12.09%
Judges	14.10	17.54
National Guard	7.00	8.05
Law Enforcement with prior Main service	10.80	11.58
Law Enforcement without prior Main service	7.53	7.72

- The actuarial valuation report as of July 1, 2010 is based on financial data as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.

- 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. Based on the Actuarial Experience Study completed in early 2010, the Board approved several changes to the actuarial assumptions. This resulted in an increase in the actuarially determined contribution rate of 1.54% of payroll. See Exhibits II and III of Appendix A for a complete summary of assumptions and changes in assumptions.
- Effective July 1, 2009, 37 employees of the Bureau of Criminal Investigation transferred from the Main System to the Law Enforcement With Prior Main Service Plan. A corresponding asset transfer of \$3,511,938 took place. This amount is equal to their Actuarial Accrued Liability in the Main System, as of July 1, 2009.
- Members with service and member contributions in two Systems (Main and Judges or Main and Highway Patrol) are valued in both Systems. A liability is calculated in each System for service in that System. Prior to this valuation, transfers between Main, Judges and Highway Patrol were the only transferred members valued this way. Beginning with the July 1, 2010 valuation, PERS has provided us with service and member contributions in two Systems for members that transferred between any two Systems.

III. MEMBER CHARACTERISTICS

Active Members

The age, service, compensation and account balance information based on data provided by the Retirement Office for active members as of July 1, 2009 and July 1, 2010 is summarized below:

Category	Year Beginning July 1		Change From
	2010	2009	Prior Year
Main:			
Number	20,372	19,686	3.5%
Average age	47.2	47.0	N/A
Average service credit	10.5	10.4	1.0%
Total compensation	\$751,067,149	\$684,333,238	9.8%
Average compensation	\$36,868	\$34,762	6.1%
Contribution account balance	\$590,190,993	\$499,497,595	18.2%
Judges:			
Number	47	47	0.0%
Average age	58.1	57.0	N/A
Average service credit	17.0	16.8	1.2%
Total compensation	\$5,685,227	\$5,439,847	4.5%
Average compensation	\$120,962	\$115,741	4.5%
Contribution account balance	\$4,312,283	\$4,005,004	7.7%
National Guard:			
Number	30	36	-16.7%
Average age	35.1	34.4	N/A
Average service credit	4.8	3.6	33.3%
Total compensation	\$1,259,707	\$1,336,097	-5.7%
Average compensation	\$41,990	\$37,114	13.1%
Contribution account balance	\$345,955	\$291,291	18.8%
Law Enforcement with prior Main service:			
Number	187	144	29.9%
Average age	40.7	41.2	N/A
Average service credit	8.8	8.7	1.1%
Total compensation	\$10,559,725	\$5,677,624	86.0%
Average compensation	\$56,469	\$39,428	43.2%
Contribution account balance	\$5,566,535	\$3,746,848	48.6%
Law Enforcement without prior Main service:			
Number	32	30	6.7%
Average age	36.4	35.2	N/A
Average service credit	2.9	2.5	16.0%
Total compensation	\$1,138,300	\$949,790	19.8%
Average compensation	\$35,572	\$31,660	12.4%
Contribution account balance	\$118,521	\$105,929	11.9%
All active members:			
Number	20,668	19,943	3.6%
Average age	47.2	47.0	N/A
Average service credit	10.4	10.4	0.0%
Total compensation	\$769,710,108	\$697,736,596	10.3%
Average compensation	\$37,242	\$34,987	6.4%
Contribution account balance	\$600,534,287	\$507,646,667	18.3%

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 salary. The table below 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.

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

<u>Active Members Eligible for:</u>	<u>Main System</u>	<u>Judges</u>	<u>National Guard</u>	<u>Law Enforcement with prior Main service</u>	<u>Law Enforcement without prior Main service</u>	<u>Total</u>
Retirement:						
Normal	793	7	0	32	1	833
Rule of 85	1,180	7	N/A	0	0	1,187
Early Retirement	<u>3,625</u>	<u>15</u>	<u>1</u>	<u>20</u>	<u>1</u>	<u>3,662</u>
Total Retirement	5,598	29	1	52	2	5,682
Deferred Retirement	<u>9,094</u>	<u>12</u>	<u>15</u>	<u>80</u>	<u>8</u>	<u>9,209</u>
Total vested	14,692	41	16	132	10	14,891
Nonvested	<u>5,680</u>	<u>6</u>	<u>14</u>	<u>55</u>	<u>22</u>	<u>5,777</u>
Total	20,372	47	30	187	32	20,668

Transfers

Some active members earned a portion of their service in a different system than they are currently in. Liabilities for these members are carried in each system based on their service in that system. The following table summarizes these members:

<u>Original System</u>	<u>Current System</u>						<u>Total</u>
	<u>Main System</u>	<u>Judges</u>	<u>National Guard</u>	<u>Law Enforcement with prior Main service</u>	<u>Law Enforcement without prior Main service</u>	<u>Highway Patrol</u>	
Main System	-	20	1	45	11	23	100
Judges	2	-	-	-	-	-	2
National Guard	2	-	-	-	-	-	2
Law Enforcement with prior Main service	11	-	-	-	-	1	12
Law Enforcement without prior Main service	4	-	-	-	-	-	4
Highway Patrol	<u>9</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>10</u>
Total	28	20	1	46	11	24	130

Inactive Members

There were 3,375 inactive members (including 1 from Judges, 5 from National Guard, 10 from Law Enforcement with prior Main service, and 2 from Law Enforcement without prior Main Service) as of July 1, 2010 with vested rights to deferred retirement benefits. The average deferred monthly benefit for this group was \$362. There were also 35 members from the Main System and 6 members from National Guard on leave of absence. For these groups, a liability is carried for their deferred retirement benefits.

There were 2,142 inactive members that are due refunds (including 11 from National Guard, 5 from Law Enforcement with prior Main service, and 5 from Law Enforcement without prior Main Service).

IV. BENEFIT EXPERIENCE

New Awards

During the fiscal year ended in June 2010, 421 pensions became effective. The average monthly benefit for these pensioners was \$1,232 and their average age at retirement was 63.5. Last year, the average benefit among new pensioners was \$1,130. The new pensioners are presented in Tables 10-A, 10-B, 10-C, 11-A, 11-B and 11-C in Appendix B by sex, type of pension, monthly benefit and age on retirement date.

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

	<u>July 1, 2010</u>	<u>July 1, 2009</u>
Normal	143	166
Rule of 85	165	194
Early	106	127
Disability	<u>7</u>	<u>14</u>
Total	421	501

Pensioners

Since benefits became payable under the current retirement program, a total of 9,433 retirement pensions have been awarded, of which 6,681 remained on the June 2010 rolls (including 22 retired Judges and 32 retired members of the National Guard/Law Enforcement). In addition, 74 pensions were in suspended status as of June 30, 2010. 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, 2010, the average monthly benefit was \$917, an increase of \$26 from \$891 a year earlier. The average age of these pensioners on the valuation date was 72.1 years.

Beneficiaries

As of July 1, 2010, monthly benefit payments were being made to 735 beneficiaries, including 8 beneficiaries of Judges. In addition, 10 beneficiaries were in suspended status as of June 30, 2010. The monthly payments to beneficiaries in payment status total \$438,141.

Prior Service Pensioners

As of July 1, 2010, there were 18 pensioners receiving monthly benefits of \$634 under the Special Prior Service Pension provisions of the System. The current average age of Prior Service pensioners was 97.1 years, and the average monthly benefit was \$35. 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, 2010, the combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen's Retirement System (HPRS) was \$1,519,023,138, an increase of \$158 million compared to \$1,360,977,213 a year earlier. This year's combined market value represents an increase of 11.61% over the market value one year earlier.

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

	<u>July 1, 2010</u>	<u>July 1, 2009</u>
Main System	\$1,433,343,720	\$1,287,683,367
Judges	26,895,688	23,849,876
National Guard	1,900,428	1,692,656
Law Enforcement with prior Main service	11,737,147	6,556,328
Law Enforcement without prior Main service	<u>307,999</u>	<u>221,366</u>
Total	\$1,474,184,982	\$1,320,003,593

The rate of return on the market value basis for the PERS Fund was 13.25% for the year ended June 30, 2010.

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. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

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 \$1,671,048,709 as of June 30, 2010. The determination of the combined actuarial asset value is shown in Table 1. This table shows that there is approximately \$152 million of depreciation 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 \$756,520,300 on an actuarial value basis represented an average annual return of 5.75%. For the 2009-2010 year, the actuarial rate of return on the combined assets was 1.48%.

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.

	<u>July 1, 2010</u>	<u>July 1, 2009</u>
Main System	\$1,576,794,397	\$1,577,552,012
Judges	29,587,439	29,218,689
National Guard	2,090,625	2,073,688
Law Enforcement with prior Main service	12,911,814	8,032,215
Law Enforcement without prior Main service	<u>338,824</u>	<u>271,197</u>
Total	\$1,621,723,099	\$1,617,147,801

Chart 1 on page 15 shows 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 currently less than the actuarial value.

Income and disbursements for 2010 and 2009 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.

A picture of the financial development of the PERS Fund over the last ten years is provided in Chart 2 on page 18. It shows that benefit payments and expenses continue to exceed contributions. However, over the past ten years, the investment income has offset this deficit and served to increase the assets of the System.

Investment results on an actuarial value 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 PERS and HPRS fund are as follows:

<u>Year Ending June 30</u>	<u>Market Value</u>	<u>Actuarial Value</u>
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
2008	(5.21)	8.51
2009	(24.05)	1.72
2010	13.25	1.48

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 19 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.

Rates of investment return 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, 2010 and 2009***

<u>Year Ending</u>	<u>Total Appreciation (Depreciation)</u>	<u>June 30, 2010</u>		<u>June 30, 2009</u>	
		<u>Percent Deferred</u>	<u>Amount Deferred</u>	<u>Percent Deferred</u>	<u>Amount Deferred</u>
June 30, 2006	\$152,103,565	0%	\$0	20%	\$30,420,713
June 30, 2007	285,031,438	20%	57,006,288	40%	114,012,575
June 30, 2008	(133,303,450)	40%	(53,321,380)	60%	(79,982,070)
June 30, 2009	(463,523,678)	60%	(278,114,207)	80%	(370,818,942)
June 30, 2010	153,004,660	80%	<u>122,403,728</u>	N/A	<u>0</u>
Total Deferred as of Valuation Date			(\$152,025,571)		(\$306,367,724)
(a) Total Appreciation (Depreciation) for last five Plan Years			(6,687,465)		(4,821,863)
(b) Write-Up/(Down) Amount for the year - equals 20% of (a)			(1,337,493)		(964,373)
			<u>June 30, 2010</u>		<u>June 30, 2009</u>
Market Value of Assets			\$1,519,023,138		\$1,360,977,213
Less: Deferred Appreciation (Depreciation)			<u>(152,025,571)</u>		<u>(306,367,724)</u>
Actuarial value of assets			\$1,671,048,709		\$1,667,344,937
Actuarial Value as a Percent of Market Value			110.0%		122.5%

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*		Other Income**		Total Net Investment Income	
	Amount	Yield	Amount	Yield	Amount	Yield
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	5.86	98,321,500	7.79
2007	34,727,000	2.58	178,771,700	13.26	213,498,700	15.84
2008	32,819,700	2.13	98,332,000	6.38	131,151,700	8.51
2009	29,260,400	1.77	(964,400)	(0.05)	28,296,000	1.72
2010	25,938,200	1.57	(1,337,500)	(0.09)	24,600,700	1.48
Total for Last Ten Years	\$316,496,400		\$440,023,900		\$756,520,300	
Average Yield for last Ten Years					5.75%	

* Net of investment expenses.

** Includes write-up (down).

TABLE 3

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

	July 1, 2010		July 1, 2009	
	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Market Value</u>	<u>Actuarial Value</u>
PERS Main System	\$1,433,343,720	\$1,576,794,397	\$1,287,683,367	\$1,577,552,012
PERS Judges	26,895,688	29,587,439	23,849,876	29,218,689
PERS National Guard	1,900,428	2,090,625	1,692,656	2,073,688
PERS Law Enforcement with prior Main service	11,737,147	12,911,814	6,556,328	8,032,215
PERS Law Enforcement without prior Main service	307,999	338,824	221,366	271,197
PERS Combined	\$1,474,184,982	\$1,621,723,099	\$1,320,003,593	\$1,617,147,801
Highway Patrol	<u>44,838,156</u>	<u>49,325,610</u>	<u>40,973,620</u>	<u>50,197,136</u>
Total	\$1,519,023,138	\$1,671,048,709	\$1,360,977,213	\$1,667,344,937

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

Chart 1
Value of Assets for PERS

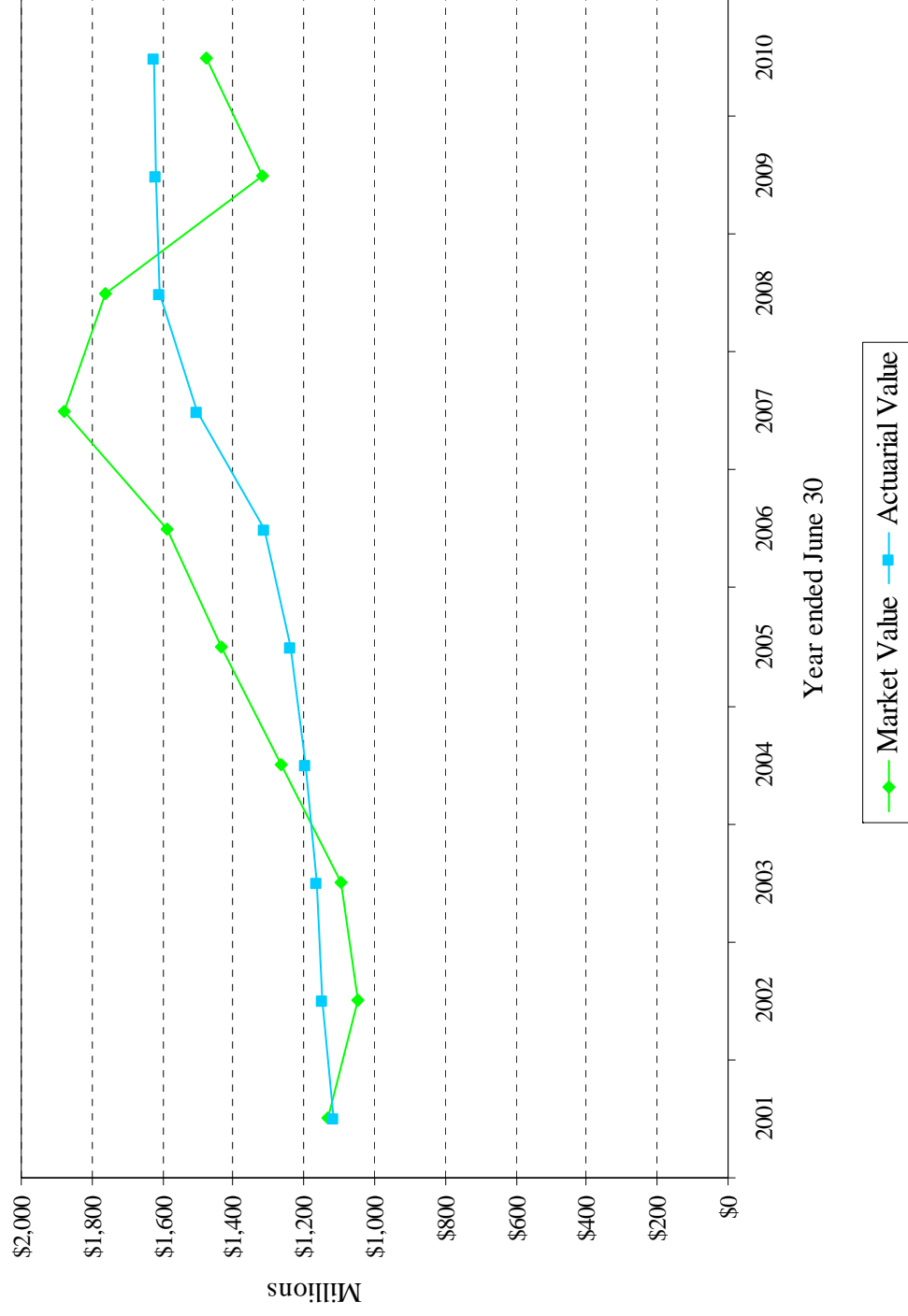


TABLE 4
Summary Statement of Income and Disbursements for PERS
for the Years Ended June 30, 2010 and 2009
(Actuarial Value Basis)

	<u>June 30, 2010</u>	<u>June 30, 2009</u>
Contribution Income:		
Employer Contributions	\$30,253,093	\$27,705,267
Member Contributions	28,579,338	26,237,554
Service Credit Repurchases	<u>4,005,571</u>	<u>3,732,801</u>
Total Contribution Income	\$62,838,002	\$57,675,622
Less: Administrative Expenses	<u>(1,214,733)</u>	<u>(1,260,812)</u>
Net Contribution Income	<u>\$61,623,269</u>	<u>\$56,414,810</u>
Teachers Retirement Plan Transfer	\$0	\$0
Investment Income:		
Interest and Dividends	\$31,306,367	\$34,952,090
Miscellaneous Income	3,406	1,983
Less: Investment Expenses	<u>(6,146,415)</u>	<u>(6,583,452)</u>
Net Interest and Dividends	\$25,163,358	\$28,370,621
Write-up of Assets	<u>(1,173,587)</u>	<u>(861,162)</u>
Net Investment Income	<u>\$23,989,771</u>	<u>\$27,509,459</u>
Total Income Available for Benefit Payments and Reserves	<u>\$85,613,040</u>	<u>\$83,924,269</u>
Benefit Payments:		
Pension Benefits	\$(76,884,950)	\$(71,169,574)
Transfers to Other Plans	(210,638)	(496,073)
Refunds	<u>(3,942,154)</u>	<u>(4,921,163)</u>
Total Benefit Payments	<u>\$(81,037,742)</u>	<u>\$(76,586,810)</u>
Addition to Reserve for Future Benefit Payments	\$4,575,298	\$7,337,459
Actuarial Value of Assets, Start of Year	<u>1,617,147,801</u>	<u>1,609,810,342</u>
Actuarial Value of Assets, End of Year	<u>\$1,621,723,099</u>	<u>\$1,617,147,801</u>

TABLE 5

Progress of the PERS Fund through June 30, 2010
(Actuarial Value Basis)

Year Ended June 30	Employer Contributions	Member Contributions*	Administrative Expenses	Net Investment Income	Transfers From/(To) Other Plans	Benefit Payments	Fund at End Of Year
2000							\$1,027,001,825
2001	\$17,101,628	\$17,353,268	(\$894,868)	\$95,499,825	(\$314,930)	(\$40,412,352)	1,115,334,396
2002	18,244,655	18,439,125	(983,258)	43,304,595	(337,553)	(44,001,131)	1,150,000,829
2003	19,212,733	19,758,764	(1,068,803)	25,009,784	(129,235)	(46,331,954)	1,166,452,118
2004	19,732,842	22,152,045	(995,879)	36,594,962	3,771,763	(51,174,769)	1,196,533,082
2005	20,704,241	24,097,496	(1,072,277)	51,592,706	(21,131)	(55,719,982)	1,236,114,135
2006	21,969,517	24,508,623	(1,037,535)	95,085,991	(41,271)	(62,056,555)	1,314,542,905
2007	23,140,767	25,562,617	(1,109,260)	206,643,922	(39,829)	(65,601,228)	1,503,139,894
2008	25,253,902	27,351,026	(1,118,233)	126,989,439	3,132,512	(74,938,198)	1,609,810,342
2009	27,705,267	29,970,355	(1,260,812)	27,509,459	(496,073)	(76,090,737)	1,617,147,801
2010	30,253,093	32,584,909	(1,214,733)	23,989,771	(210,638)	(80,827,104)	1,621,723,099
Total for Last Ten Years	\$223,318,645	\$241,778,228	(\$10,755,658)	\$732,220,454	\$5,313,615	(\$597,154,010)	

* Includes repurchases of service credit.

Chart 2
Income and Disbursements for PERS

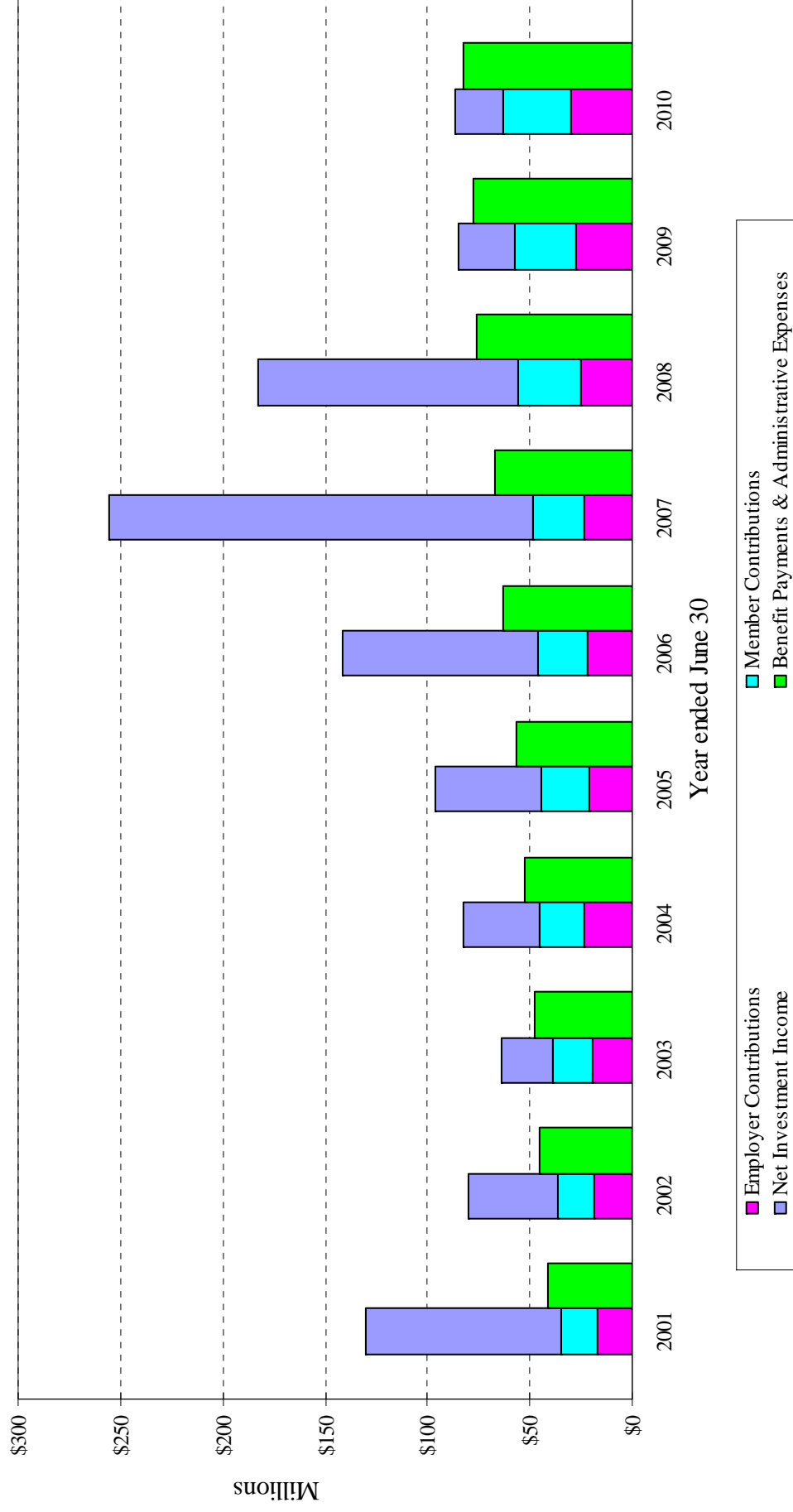
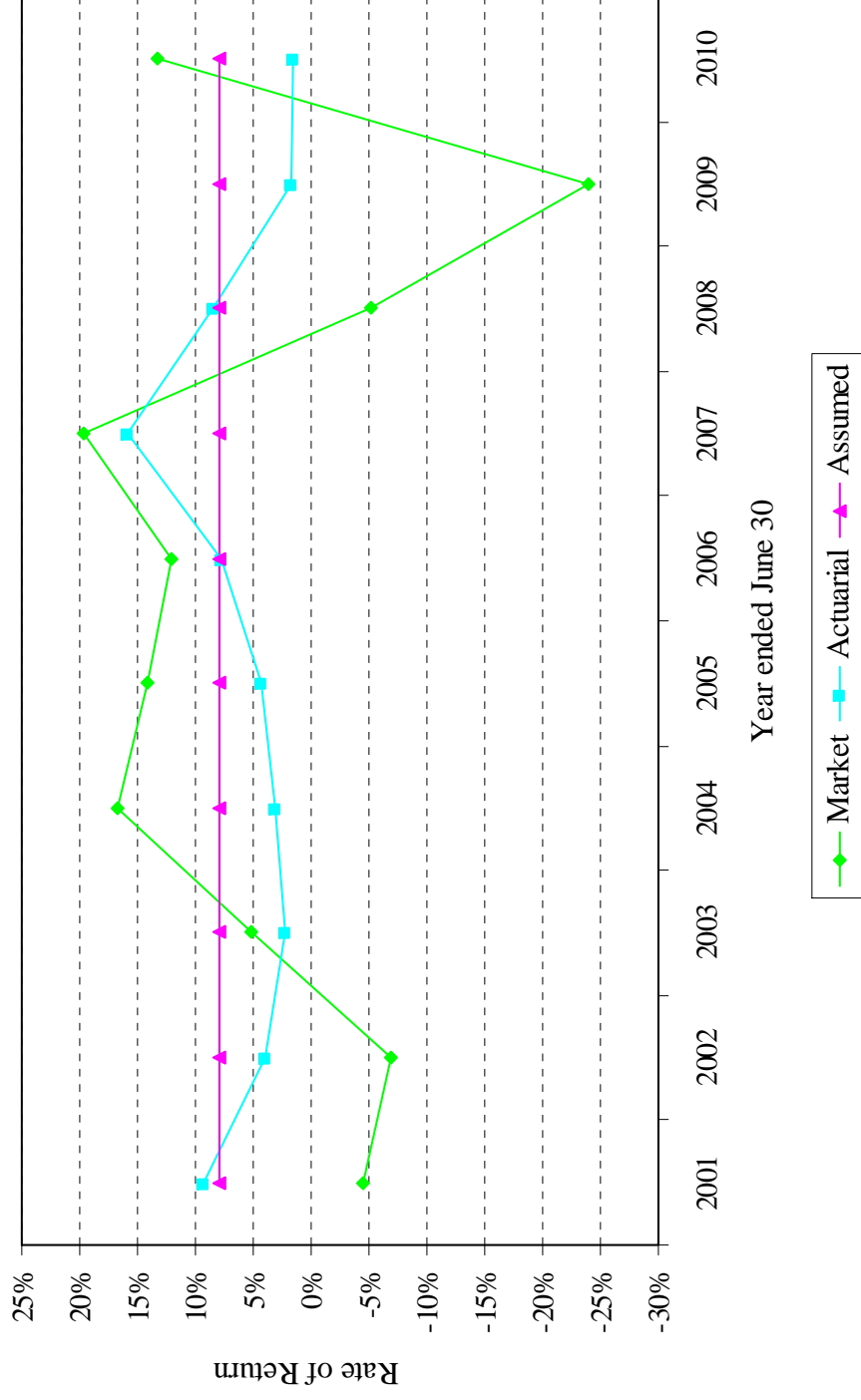


Chart 3
Investment Returns
(PERS and HPRS Combined)



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 2010-2011 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:

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$69,274,185	9.22%
Less: Member contributions	<u>(30,042,686)</u>	<u>(4.00)</u>
Net employer normal cost	\$39,231,499	5.22%
Administrative expense allowance	1,100,000	0.15
Amortization payment (credit)	<u>40,462,036</u>	<u>5.39</u>
Total employer contribution requirement	\$80,793,535	10.76%

Covered payroll is \$751,067,149.

The statutory contribution rate is 4.12% of payroll. Hence, statutory contributions are less than the actuarial contribution requirement shown above by 6.64% of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

The total employer actuarial contribution requirement was 7.74% of payroll last year. Since then, actual experience of the System during 2009-2010 has changed the actuarial contribution requirement. Table 6 presents a detailed explanation of the factors that changed the contribution requirement from July 1, 2009 to July 1, 2010.

Judges

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$1,091,149	19.19%
Less: Member contributions	<u>(284,261)</u>	<u>(5.00)</u>
Net employer normal cost	\$806,888	14.19%
Administrative expense allowance	7,500	0.13
Amortization payment (credit)	<u>(12,915)</u>	<u>(0.22)</u>
Total employer contribution requirement	\$801,473	14.10%

Covered payroll is \$5,685,227.

The statutory contribution rate is 14.52% of payroll. Hence, statutory contributions exceed the actuarial contribution requirement shown above by 0.42% of payroll.

The net employer normal cost plus the administrative expense allowance is 14.32% of payroll. This should be viewed as the ultimate plan cost rate, since the total employer contribution requirement of 14.10% of payroll reflects an amortization credit. By this measure, statutory contributions are greater than the ultimate plan cost rate of 14.32% of payroll by 0.20% of payroll.

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

	<u>Percentage of Payroll</u>
Employer cost rate as of July 1, 2009	10.48%
Assumption change	0.91
Investment loss	2.34
Contribution gain	(0.27)
Other Plan experience during the year	0.60
Effect of maintaining 20-year amortization schedule	<u>0.04</u>
Employer cost rate as of July 1, 2010	14.10%

National Guard

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$122,487	9.72%
Less: Member contributions	<u>(50,388)</u>	<u>(4.00)</u>
Net employer normal cost	\$72,099	5.72%
Administrative expense allowance	3,000	0.24
Amortization payment (credit)	<u>13,040</u>	<u>1.04</u>
Total employer contribution requirement	\$88,139	7.00%

Covered payroll is \$1,259,707.

The approved contribution rate is 6.50% of payroll. Hence, approved contributions are less than the actuarial contribution requirement shown above by 0.50% of payroll. If unchanged, this difference will further increase the actuarial contribution requirements in future valuations.

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

	<u>Percentage of Payroll</u>
Employer cost rate as of July 1, 2009	3.71%
Assumption change	1.85
Investment loss	0.76
Contribution gain	(0.14)
Other Plan experience during the year	0.82
Effect of maintaining 20-year amortization schedule	<u>0.00</u>
Employer cost rate as of July 1, 2010	7.00%

Law Enforcement with prior Main service

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$1,089,067	10.31%
Less: Member contributions	<u>(422,389)</u>	<u>(4.00)</u>
Net employer normal cost	\$666,678	6.31%
Administrative expense allowance	2,500	0.02
Amortization payment (credit)	<u>471,747</u>	<u>4.47</u>
Total employer contribution requirement	\$1,140,925	10.80%

Covered payroll is \$10,559,725.

The approved contribution rate is 8.31% of payroll. Hence, approved contributions are less than the actuarial contribution requirement shown above by 2.49% of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

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

	<u>Percentage of Payroll</u>
Employer cost rate as of July 1, 2009	9.11%
Assumption change	1.54
Investment gain	(0.08)
Contribution loss	0.00
Other Plan experience during the year including Plan amendment	0.36
Effect of maintaining 20-year amortization schedule	<u>(0.13)</u>
Employer cost rate as of July 1, 2010	10.80%

Law Enforcement without prior Main service

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$114,844	10.09%
Less: Member contributions	<u>(45,532)</u>	<u>(4.00)</u>
Net employer normal cost	\$69,312	6.09%
Administrative expense allowance	7,500	0.66
Amortization payment (credit)	<u>8,956</u>	<u>0.78</u>
Total employer contribution requirement	\$85,768	7.53%

Covered payroll is \$1,138,300.

The approved contribution rate is 6.43% of payroll. Hence, approved contributions are less than the actuarial contribution requirement shown above by 1.10% of payroll. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.

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

	<u>Percentage of Payroll</u>
Employer cost rate as of July 1, 2009	6.83%
Assumption change	1.16
Investment loss	0.07
Contribution gain	(0.02)
Other Plan experience during the year	(0.49)
Effect of maintaining 20-year amortization schedule	<u>(0.02)</u>
Employer cost rate as of July 1, 2010	7.53%

Main System, Judges, National Guard and Law Enforcement Combined

The components of the actuarial contribution requirement are shown below.

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$71,691,732	9.31%
Less: Member contributions	<u>(30,845,256)</u>	<u>(4.01)</u>
Net employer normal cost	\$40,846,476	5.30%
Administrative expense allowance	1,120,500	0.15
Amortization payment (credit)	<u>40,942,864</u>	<u>5.32</u>
Total employer contribution requirement	\$82,909,840	10.77%

Covered payroll is \$769,710,108.

TABLE 6
Main System
Explanation of Change in Employer Cost Rate

	Percent of Payroll
Employer Cost Rate as of July 1, 2009	7.74%
<i>Retired Life Mortality</i>	0.09%
The release of liability due to deaths among retirees and beneficiaries was less than expected, increasing the employer cost rate.	
<i>Active Life Mortality</i>	0.02%
The release of liability due to deaths among active members was less than expected, increasing the employer cost rate.	
<i>Disability Incidence</i>	0.00%
The net change in liability due to disability retirements was nearly equal to that expected.	
<i>Withdrawals</i>	(0.03)%
The release of liability due to withdrawals prior to retirement was greater than expected, decreasing the employer cost rate.	
<i>Retirement</i>	(0.25)%
The actual liability due to non-disabled retirements was less than expected, decreasing the employer cost rate.	
<i>Investments</i>	0.96%
On an actuarial value basis, the rate of return on assets was less than the assumed rate of return, increasing the employer cost rate.	
<i>Salary Scale</i>	0.29%
Salaries increased more than expected, increasing the employer cost rate.	
<i>Contributions</i>	0.26%
Actual contributions received by the System were less than the actuarially determined amount, increasing the required contributions in future years.	

TABLE 6
Main System
Explanation of Change in Employer Cost Rate (continued)

	Percent of Payroll
<i>Administrative Expenses</i>	0.00%
Actual expenses were about the same as expected.	
<i>New and Reinstated Members</i>	0.07%
The addition of new and reinstated members increased the employer cost rate.	
<i>Part-Time Experience</i>	(0.01)%
Some continuing active members earned less than one year of service during the current year, decreasing the employer cost rate.	
<i>Change in Size and Composition of Active Membership and Miscellaneous Experience</i>	0.24%
The demographic characteristics of the active membership changed during the year, increasing the employer cost rate.	
<i>Plan Provision Changes</i>	0.00%
The transfer of employees of the Bureau of Criminal Investigation out of the Main System had virtually no effect on the employer cost rate.	
<i>Assumption Changes</i>	1.54%
There were changes in actuarial assumptions from the Actuarial Experience Study, increasing the employer cost rate.	
<i>Funding Schedule</i>	(0.16)%
The effect of maintaining a 20-year funding schedule results in a decrease in cost.	
Employer Cost Rate as of July 1, 2010	10.76%

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. 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

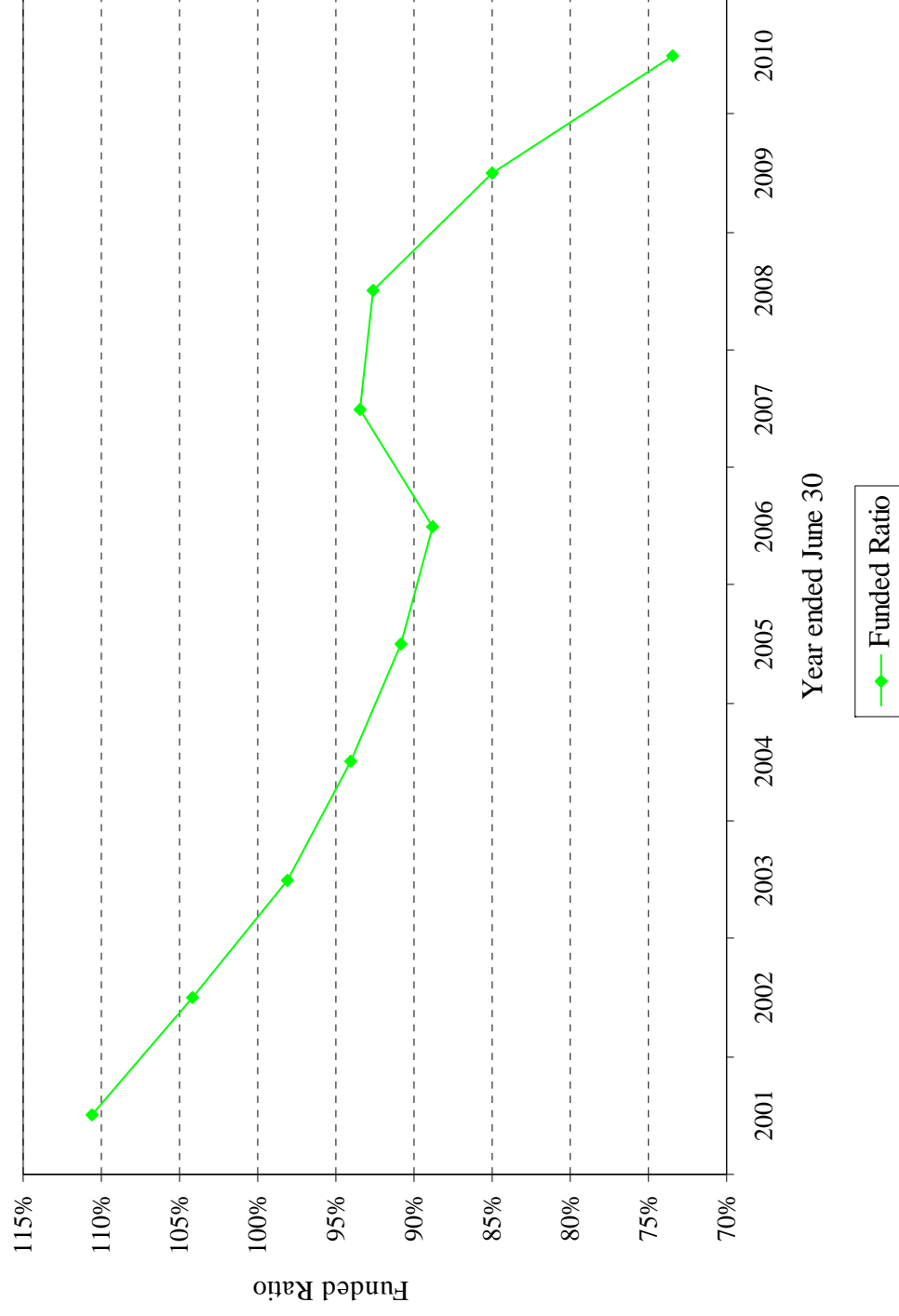
The funded ratios (under the GASB Statement No. 25 standard) for the last ten years are developed in Table 7. These ratios are graphed in Chart 4 on page 30. They show that the funded ratio has deteriorated since July 1, 2001. This is due to investment losses and the fact that the statutory contribution rate is less than the actuarially determined contribution requirement. Furthermore, even if the actuarially determined contribution were made, the amortization policy calculates an amortization payment that is less than the interest on the Unfunded Actuarial Accrued Liability (UAAL), which would cause the UAAL to increase each year.

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, the actuarial assumptions were changed in 2006 and 2010, 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
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
2008	1,737,627,000	1,609,810,300	92.6
2009	1,901,200,800	1,617,147,800	85.1
2010	2,208,386,100	1,621,723,100	73.4

Chart 4
Funded Ratio (PERS)



VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

Based on the results of the Actuarial Experience Study completed in early 2010, the Board approved several changes to the actuarial assumptions. A summary of the actuarial assumptions and cost methods follows. Details can be found in Exhibits II and III of Appendix A, including a description of the previous assumptions and methods.

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 increases are service-related during the first five years of service. After five years of service, salary increases are age-related. Sample age-related annual salary rate increases are as follows:

<u>Service</u>	<u>Increase</u>	<u>Age</u>	<u>Increase</u>
0	8.25%	25	6.25%
1	7.25%	30	5.93%
2	6.75%	35	5.50%
3	6.50%	40	5.23%
4	6.25%	45	5.11%
		50	5.02%
		55	4.93%
		60	4.86%

For Judges, the assumed salary increase is 5.00% 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 decreasing 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 RP-2000 Combined Healthy Mortality Table set back three years for healthy members and the RP-2000 Disabled Retiree Mortality Table set back one year for males (not set back for females) for disabled members. The table below shows sample mortality rates and life expectancies underlying the healthy mortality tables.

Retired Members				
Age	Males		Females	
	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	2.7	28.4	2.0	31.2
60	4.7	23.9	3.5	26.6
65	8.8	19.5	6.7	22.1
70	16.1	15.6	12.2	18.0
75	27.3	12.0	20.7	14.3
80	46.9	8.9	34.1	11.0
85	80.5	6.3	56.3	8.1

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, 33% of the Social Security disability incidence rates are used for males and 20% 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:

<u>Age</u>	<u>Years of Service</u>				
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
29 & Under	22%	18%	16%	14%	14%
30 - 39	16	14	12	12	11
40 & Over	12	10	10	8	7

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

<u>Age</u>	<u>Rate</u>
20 - 24	8.8%
25 - 29	8.8
30 - 34	5.5
35 - 39	4.7
40 - 44	3.9
45 - 49	3.7
50 - 54	3.4
55 - 59	0.1
60 & Over	0.2

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

<u>Age</u>	<u>Years of Service</u>				
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
29 & Under	25%	23%	20%	17%	15%
30 - 39	20	17	15	13	11
40 & Over	17	15	12	10	7

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

<u>Age</u>	<u>Rate</u>
20 - 24	8.8%
25 - 29	8.8
30 - 34	5.5
35 - 39	4.7
40 - 44	3.9
45 - 49	3.7
50 - 54	3.4
55 - 59	0.1
60 & Over	0.2

For Judges, withdrawal rates at each age are:

<u>Age</u>	<u>Rate</u>
20 - 24	2.2%
25 - 29	2.2
30 - 34	1.4
35 - 39	1.2
40 - 44	1.0
45 - 49	0.9
50 - 54	0.8
55 - 59	0.0
60 & Over	0.1

Withdrawal rates end upon the earlier of eligibility for early retirement or the Rule of 85 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:

<u>Age</u>	<u>Early Retirement</u>	<u>Unreduced Retirements*</u>
51		8%
52		8
53		8
54		8
55	2%	8
56	2	10
57	2	10
58	2	10
59	2	10
60	4	10
61	10	20
62	20	35
63	15	25
64	10	30
65		30
66		20
67		20
68		20
69		20
70		20
71		20
72		20
73		20
74		20
75		100

**Age 65 or Rule of 85*

The retirement rates for Judges begin at age 60. Ten percent of Judges are assumed to retire at ages 60 and 61, 20% 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 begin at age 55. Twenty percent are assumed to retire at each age from 55 to 63, 50% are assumed to retire at age 64, and 100% are assumed to retire at age 65.

Retirement for inactive vested members of the Main System and Judges is assumed to occur at the earlier of age 64 and the unreduced retirement date for each individual. 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 the unreduced retirement date for each individual.

Inactive vested members are assumed to elect a refund of contributions in lieu of a deferred pension benefit when it is more valuable than the deferred annuity.

Annual Administrative Expenses

Annual administrative expenses for all Systems combined are assumed to be \$1,120,500.

Marital Status for Non-Retired Members

For the Main System, National Guard and Law Enforcement, 80% of male members and 65% of female members are assumed to have spouses at death or retirement. One hundred percent of Judges are assumed to have spouses at retirement or death. Males are assumed to be three 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). A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

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 for each member 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 policy of calculating an amortization payment for the Unfunded Actuarial Accrued Liability (UAAL) by using 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 4.0% per year for Judges. This results in a payment towards the UAAL that is less than interest on the UAAL. Under this method, the UAAL would grow from year to year even if the actuarial required contribution was made and all actuarial assumptions were met.

APPENDIX A

November 1, 2010

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, 2010 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. Summary of Plan Provisions
- V. Changes in 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.

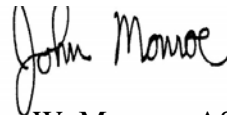
To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate and in our opinion each individual assumption used (a) is reasonably related to the experience of the System and to reasonable expectations and (b) represents our best estimate of anticipated experience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

We are members of the American Academy of Actuaries, and we meet the Qualifications Standards of the American Academy of Actuaries to render the actuarial opinion herein.

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



Brad Ramirez, FSA, MAAA, FCA, EA
Consulting Actuary



John W. Monroe, ASA, MAAA, EA
Vice President & Associate Actuary



Kurt Schneider, ASA, MAAA, EA
Associate Actuary

EXHIBIT I-A

ACTUARIAL VALUATION RESULTS

MAIN SYSTEM

1.	Actuarial accrued liability on July 1, 2010:	
a.	Active members	\$1,352,678,285
b.	Special prior service pensions.....	23,378
c.	Retired members and beneficiaries	706,086,845
d.	Inactive non-retired members	<u>97,772,045</u>
e.	Total	\$2,156,560,553
2.	Assets at actuarial value (\$1,433,343,720 at market value)	1,576,794,397
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	579,766,156
4.	Member and employer normal cost for ensuing year*	69,274,185
5.	Estimated annual salaries of covered members.....	751,067,149
6.	Member normal cost - equals 4% of (5)	30,042,686
7.	Employer normal cost for ensuing year - equals (4) minus (6)	39,231,499
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	40,462,036
9.	Administrative expenses.....	1,100,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	80,793,535
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	10.76%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-B

ACTUARIAL VALUATION RESULTS

JUDGES

1.	Actuarial accrued liability on July 1, 2010:	
a.	Active members	\$17,591,866
b.	Retired members and beneficiaries	11,585,252
c.	Inactive non-retired members	<u>232,520</u>
d.	Total	\$29,409,638
2.	Assets at actuarial value (\$26,895,688 at market value)	29,587,439
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	(177,801)
4.	Member and employer normal cost for ensuing year*	1,091,149
5.	Estimated annual salaries of covered members	5,685,227
6.	Member normal cost - equals 5% of (5)	284,261
7.	Employer normal cost for ensuing year - equals (4) minus (6)	806,888
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	(12,915)
9.	Administrative expenses	7,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	801,473
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	14.10%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-C

ACTUARIAL VALUATION RESULTS

NATIONAL GUARD

1.	Actuarial accrued liability on July 1, 2010:	
a.	Active members	\$945,836
b.	Retired members and beneficiaries	1,039,722
c.	Inactive non-retired members	<u>291,913</u>
d.	Total	\$2,277,471
2.	Assets at actuarial value (\$1,900,428 at market value)	2,090,625
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	186,846
4.	Member and employer normal cost for ensuing year*	122,487
5.	Estimated annual salaries of covered members	1,259,707
6.	Member normal cost - equals 4% of (5)	50,388
7.	Employer normal cost for ensuing year - equals (4) minus (6)	72,099
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	13,040
9.	Administrative expenses	3,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	88,139
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	7.00%

* 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, 2010:	
	a. Active members	\$14,607,157
	b. Retired members and beneficiaries	4,710,289
	c. Inactive non-retired members	<u>353,862</u>
	d. Total	\$19,671,308
2.	Assets at actuarial value (\$11,737,147 at market value)	12,911,814
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	6,759,494
4.	Member and employer normal cost for ensuing year*	1,089,067
5.	Estimated annual salaries of covered members	10,559,725
6.	Member normal cost - equals 4% of (5)	422,389
7.	Employer normal cost for ensuing year - equals (4) minus (6)	666,678
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	471,747
9.	Administrative expenses	2,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	1,140,925
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	10.80%

* 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, 2010:	
	a. Active members	\$385,336
	b. Retired members and beneficiaries.....	0
	c. Inactive non-retired members	<u>81,814</u>
	d. Total	\$467,150
2.	Assets at actuarial value (\$307,999 at market value)	338,824
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	128,326
4.	Member and employer normal cost for ensuing year*	114,844
5.	Estimated annual salaries of covered members	1,138,300
6.	Member normal cost - equals 4% of (5)	45,532
7.	Employer normal cost for ensuing year - equals (4) minus (6)	69,312
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	8,956
9.	Administrative expenses.....	7,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	85,768
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	7.53%

* 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, 2010:	
	a. Active members	\$1,386,208,480
	b. Special prior service pensions.....	23,378
	c. Retired members and beneficiaries	723,422,108
	d. Inactive non-retired members	<u>98,732,154</u>
	e. Total.....	\$2,208,386,120
2.	Assets at actuarial value (\$1,474,184,982 at market value)	1,621,723,099
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)	586,663,021
4.	Member and employer normal cost for ensuing year*	71,691,732
5.	Estimated annual salaries of covered members	769,710,108
6.	Member normal cost	30,845,256
7.	Employer normal cost for ensuing year - equals (4) minus (6)	40,846,476
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*	40,942,864
9.	Administrative expenses.....	1,120,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9)	82,909,840
11.	Total employer cost as percentage of payroll - equals (10) divided by (5)	10.77%

* Adjusted for interest to recognize payments through the year.

EXHIBIT II

ACTUARIAL ASSUMPTIONS AND COST METHODS

1. Mortality Tables:

Healthy: The RP-2000 Combined Healthy Mortality Table, set back three years.

Disabled: The RP-2000 Disabled Retiree Mortality Table, set back one year for males (not set back for females).

2. Disability Incidence Rates:

Before age 65: Males 33% of OASDI disability incidence rates.
 Females 20% of OASDI disability incidence rates.

Age 65 and later: 0.25% per year.

Sample rates are as follows:

<u>Age</u>	<u>Male</u>	<u>Female</u>
20	0.02%	0.01%
30	0.04	0.02
40	0.07	0.04
50	0.20	0.12
60	0.54	0.33

3. Annual Withdrawal Rates:

Main System:

First five years of service:

	<u>Years of Service</u>				
<u>Age</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
29 & Under	22%	18%	16%	14%	14%
30 - 39	16	14	12	12	11
40 & Over	12	10	10	8	7

EXHIBIT II (continued)

Ultimate withdrawal rates after five years service:

<u>Age</u>	<u>Rate</u>
20 - 24	8.8%
25 - 29	8.8
30 - 34	5.5
35 - 39	4.7
40 - 44	3.9
45 - 49	3.7
50 - 54	3.4
55 - 59	0.1
60 & Over	0.2

National Guard and Law Enforcement:

First five years of service:

	<u>Years of Service</u>				
<u>Age</u>	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
29 & Under	25%	23%	20%	17%	15%
30 - 39	20	17	15	13	11
40 & Over	17	15	12	10	7

Ultimate withdrawal rates after five years service:

<u>Age</u>	<u>Rate</u>
20 - 24	8.8%
25 - 29	8.8
30 - 34	5.5
35 - 39	4.7
40 - 44	3.9
45 - 49	3.7
50 - 54	3.4
55 - 59	0.1
60 & Over	0.2

EXHIBIT II (continued)

Judges:

<u>Age</u>	<u>Rate</u>
20 – 24	2.2%
25 – 29	2.2
30 – 34	1.4
35 – 39	1.2
40 – 44	1.0
45 – 49	0.9
50 – 54	0.8
55 – 59	0.0
60 & Over	0.1

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

Main System:

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

Judges:

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

National Guard and Law Enforcement:

Age 50 and 3 years of service.

4. Refund of Employee Contributions:

Inactive vested members are assumed to elect a refund of employee contributions in lieu of deferred pension benefits when it is more valuable than the deferred annuity.

EXHIBIT II (continued)

5. Retirement Rates for Active Members:

Main System:

<u>Age</u>	<u>Early Retirement</u>	<u>Unreduced Retirements</u>
51		8%
52		8
53		8
54		8
55	2%	8
56	2	10
57	2	10
58	2	10
59	2	10
60	4	10
61	10	20
62	20	35
63	15	25
64	10	30
65		30
66		20
67		20
68		20
69		20
70		20
71		20
72		20
73		20
74		20
75		100

Judges:

<u>Age</u>	<u>Rate</u>
60	10%
61	10
62	20
63	20
64	20
65	50
66	50
67	50
68	50
69	50
70	100

EXHIBIT II (continued)

National Guard and Law Enforcement:

<u>Age</u>	<u>Rate</u>
55	20%
56	20
57	20
58	20
59	20
60	20
61	20
62	20
63	20
64	50
65	100

6. **Retirement Age for Inactive Vested Members:**

Main System and Judges:

The earlier of:

- Age 64.
- Unreduced retirement date for each individual.

National Guard:

Age 55.

Law Enforcement:

The earlier of:

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

7. **Interest Rate:**

8.00% per annum, net of investment expenses.

8. **Annual Administrative Expenses:**

<i>Main System:</i>	\$1,100,000
<i>Judges:</i>	\$7,500
<i>National Guard:</i>	\$3,000
<i>Law Enforcement with Prior Main Service:</i>	\$2,500
<i>Law Enforcement without Prior Main Service:</i>	\$7,500

EXHIBIT II (continued)

9. Salary Scale:

Main System, National Guard, and Law Enforcement:

Less than five years of service:

<u>Service</u>	<u>Percentage Increase</u>
0	8.25%
1	7.25
2	6.75
3	6.50
4	6.25

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

<u>Age</u>	<u>Percentage Increase</u>	<u>Age</u>	<u>Percentage Increase</u>
25	6.25%	45	5.11%
30	5.93	50	5.02
35	5.50	55	4.93
40	5.23	60	4.86

Judges:

5.00% per annum for all years of service.

10. Payroll Growth:

Main System, National Guard and Law Enforcement:

4.50% per annum

Judges:

4.00% per annum

11. Percent Married and Age of Spouse:

Main System, National Guard, and Law Enforcement:

At retirement or death, 80% of male members and 65% of female members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

Judges:

At retirement or death, 100% of members are assumed to have spouses. Males are assumed to be three years older than their female spouses.

EXHIBIT II (continued)

12. Part-Time Employees:

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

13. 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.

14. 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.

15. 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. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

16. 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

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

None assumed.

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

Participation

Under Chapter 54-52.2:

If not elected: None.

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**

Based on the results of the Actuarial Experience Study completed in early 2010 the Board approved several changes to the following actuarial assumptions. Previously, these assumptions were as follows:

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:

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

3. Annual Withdrawal Rates:

Main System:

First five years of service:

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

EXHIBIT III (continued)

Ultimate withdrawal rates after five years service:

<u>Age</u>	<u>Male</u>	<u>Female</u>
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:

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

Ultimate withdrawal rates after five years service:

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

EXHIBIT III (continued)

Judges:

<u>Age</u>	<u>Male</u>	<u>Female</u>
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.

4. Refund of Employee Contributions:

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.

EXHIBIT III (continued)

5. Retirement Rates for Active Members:

Main System:

<u>Age</u>	<u>Rule of 85 Eligible Rate</u>	<u>All Other Retirements</u>
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:

<u>Age</u>	<u>Rate</u>
62	35%
63	35
64	35
65	50
66	50
67	50
68	50
69	50
70	100

National Guard and Law Enforcement:

<u>Age</u>	<u>Rate</u>
60	100%

EXHIBIT III (continued)

6. 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.

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):

<u>Age</u>	<u>Percentage Increase</u>	<u>Age</u>	<u>Percentage Increase</u>
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 III (continued)

9. Marital Status for Non-Retired Members:

At death, 75% of male members and 60% of female members are assumed to have spouses. The same assumption applies at retirement, except for Judges, for whom 100% 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.

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

Participation

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

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 Retirement:**

Eligibility:

Main System:

Attainment of age 55 with three years of service.

Judges:

Attainment of age 55 with five years of service.

EXHIBIT IV (continued)

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 or the age at which the Rule of 85 is met.

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 or the age at which the Rule of 85 is met.

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 IV (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.

EXHIBIT IV (continued)

Benefit:

Main System, National Guard and Law Enforcement:

One of the following options:

- Lump sum payment of member's accumulated contributions with interest.
- 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 or no 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 IV (continued)

7. Accumulated Member Contributions:

Member contributions accumulate with interest at the following rates:

<u>Time Period</u>	<u>Per Annum Interest Rate</u>
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 with pop-up (for Main System, National Guard and Law Enforcement)
- 100% joint and survivor annuity with pop-up
- Twenty-year certain and life annuity
- Ten-year certain and life annuity
- Social Security level income annuity
- A partial lump sum payment in addition to one of the annuity options above.
- Effective March 1, 2011, an actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option, a deferred normal retirement option, or a Social Security level income annuity.

EXHIBIT IV (continued)

9. Final Average Salary:

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

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:

	<u>Full-Time Employees</u>	<u>Employer</u>
Main System	4.00%	4.12%
Judges	5.00%	14.52%
National Guard	4.00%	6.50%
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.

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.

EXHIBIT V

CHANGES IN PLAN PROVISIONS

Effective July 1, 2009, 37 employees of the Bureau of Criminal Investigation transferred from the Main System to the Law Enforcement With Prior Main Service Plan. A corresponding asset transfer of \$3,511,938 took place. This amount is equal to their Actuarial Accrued Liability in the Main System, as of July 1, 2009.

APPENDIX B: CENSUS TABLES

I.	Active Members	Table Designation
	(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, 2010
by Nearest Age and Years of Employment in PERS*

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

Nearest Age	Total	Years of Employment									
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
Total	8,070	3,206	1,444	1,059	764	606	510	344	137		
Under 20	7	7	-	-	-	-	-	-	-		
20-24	231	231	-	-	-	-	-	-	-		
25-29	641	575	66	-	-	-	-	-	-		
30-34	688	435	204	49	-	-	-	-	-		
35-39	761	361	188	184	28	-	-	-	-		
40-44	814	323	168	140	139	44	-	-	-		
45-49	1,049	342	216	164	153	118	52	4	-		
50-54	1,291	349	197	176	133	163	171	98	4		
55-59	1,295	312	164	165	153	148	155	150	48		
60-64	903	178	144	118	110	99	102	85	67		
65-69	274	63	64	41	36	26	23	3	18		
70-74	80	20	23	15	9	6	6	1	-		
75 & Over	36	10	10	7	3	2	1	3	-		

TABLE 8-B

*Census of Members in Active Service on July 1, 2010
by Nearest Age and Years of Employment in PERS*

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

Nearest Age	Total	Years of Employment									
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
Total	12,598	5,035	2,494	1,819	1,173	906	645	369	157		
Under 20	9	9	-	-	-	-	-	-	-		
20-24	268	268	-	-	-	-	-	-	-		
25-29	812	749	62	1	-	-	-	-	-		
30-34	1,012	653	290	69	-	-	-	-	-		
35-39	1,176	656	286	204	29	1	-	-	-		
40-44	1,411	693	312	198	147	59	2	-	-		
45-49	1,918	633	446	311	204	175	140	8	1		
50-54	2,235	605	437	398	257	184	206	140	8		
55-59	2,121	458	365	362	290	267	165	138	76		
60-64	1,222	232	214	197	184	174	98	68	55		
65-69	289	49	58	48	45	40	24	12	13		
70-74	89	25	13	25	11	6	7	1	1		
75 & Over	36	5	11	6	6	-	3	2	3		

TABLE 8-C

*Census of Members in Active Service on July 1, 2010
by Nearest Age and Years of Employment in PERS*

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

Nearest Age	Total	Years of Employment									
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
Total	20,668	8,241	3,938	2,878	1,937	1,512	1,155	713	294		
Under 20	16	16	-	-	-	-	-	-	-		
20-24	499	499	-	-	-	-	-	-	-		
25-29	1,453	1,324	128	1	-	-	-	-	-		
30-34	1,700	1,088	494	118	-	-	-	-	-		
35-39	1,937	1,017	474	388	57	1	-	-	-		
40-44	2,225	1,016	480	338	286	103	2	-	-		
45-49	2,967	975	662	475	357	293	192	12	1		
50-54	3,526	954	634	574	390	347	377	238	12		
55-59	3,416	770	529	527	443	415	320	288	124		
60-64	2,125	410	358	315	294	273	200	153	122		
65-69	563	112	122	89	81	66	47	15	31		
70-74	169	45	36	40	20	12	13	2	1		
75 & Over	72	15	21	13	9	2	4	5	3		

TABLE 9-A

*Census of Members in Active Service on July 1, 2010
by Nearest Age and Salary*

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

Nearest Age	Total	Salary											
		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		
		\$10,000	\$14,999	\$19,999	\$24,999	\$29,999	\$34,999	\$39,999	\$44,999	\$49,999	& Over		
Total	8,070	107	218	233	567	929	1,332	1,196	965	674	1,849		
Under 20	7	1	1	1	3	-	-	-	-	1	-		
20-24	231	8	8	15	31	59	56	32	14	5	3		
25-29	641	8	13	26	61	104	143	125	76	32	53		
30-34	688	2	6	21	46	71	137	129	101	62	113		
35-39	761	7	6	14	45	83	109	136	118	75	168		
40-44	814	7	12	15	46	84	130	125	94	75	226		
45-49	1,049	6	21	20	62	129	192	147	130	86	256		
50-54	1,291	11	25	26	70	136	209	182	149	122	361		
55-59	1,295	12	36	32	90	134	193	165	152	120	361		
60-64	903	16	34	30	70	83	130	117	105	75	243		
65-69	274	14	33	19	27	36	27	26	22	18	52		
70-74	80	9	13	7	13	7	5	10	4	1	11		
75 & Over	36	6	10	7	3	3	1	2	-	2	2		

TABLE 9-B

Census of Members in Active Service on July 1, 2010
by Nearest Age and Salary

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

Nearest Age	Total	Salary																
		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	12,598	221	991	1,584	1,815	1,958	1,725	1,461	1,017	657	1,169							
Under 20	9	2	4	2	1	-	-	-	-	-	-							
20-24	268	17	44	57	64	34	34	9	6	2	1							
25-29	812	20	73	109	132	138	129	104	66	27	14							
30-34	1,012	8	83	91	122	163	170	157	101	62	55							
35-39	1,176	24	109	128	133	159	169	151	112	67	124							
40-44	1,411	34	152	200	178	211	158	165	93	69	151							
45-49	1,918	28	137	255	249	293	263	222	157	106	208							
50-54	2,235	26	145	278	360	349	300	227	179	126	245							
55-59	2,121	21	119	243	331	325	284	252	200	119	227							
60-64	1,222	14	72	158	176	223	168	137	85	68	121							
65-69	289	10	30	41	46	49	40	28	16	11	18							
70-74	89	12	14	18	15	10	10	5	2	-	3							
75 & Over	36	5	9	4	8	4	-	4	-	-	2							

TABLE 9-C

Census of Members in Active Service on July 1, 2010
by Nearest Age and Salary

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

Nearest Age	Total	Salary													
		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	20,668	328	1,209	1,817	2,382	2,887	3,057	2,657	1,982	1,331	3,018				
Under 20	16	3	5	3	4	-	-	-	-	1	-				
20-24	499	25	52	72	95	93	90	41	20	7	4				
25-29	1,453	28	86	135	193	242	272	229	142	59	67				
30-34	1,700	10	89	112	168	234	307	286	202	124	168				
35-39	1,937	31	115	142	178	242	278	287	230	142	292				
40-44	2,225	41	164	215	224	295	288	290	187	144	377				
45-49	2,967	34	158	275	311	422	455	369	287	192	464				
50-54	3,526	37	170	304	430	485	509	409	328	248	606				
55-59	3,416	33	155	275	421	459	477	417	352	239	588				
60-64	2,125	30	106	188	246	306	298	254	190	143	364				
65-69	563	24	63	60	73	85	67	54	38	29	70				
70-74	169	21	27	25	28	17	15	15	6	1	14				
75 & Over	72	11	19	11	11	7	1	6	-	2	4				

TABLE 10-A

***Pensions Awarded During the Year Ended June 30, 2010
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	179	54	45	3	77
Under \$200	12	6	6	-	-
200-399	23	8	14	-	1
400-599	22	6	14	1	1
600-799	15	11	3	1	-
800-999	9	4	3	1	1
1,000-1,199	11	3	3	-	5
1,200-1,399	9	3	1	-	5
1,400-1,599	14	6	-	-	8
1,600-1,799	6	-	-	-	6
1,800-1,999	12	4	-	-	8
2,000-2,199	9	1	1	-	7
2,200-2,399	7	-	-	-	7
2,400-2,599	5	-	-	-	5
2,600-2,799	8	1	-	-	7
2,800-2,999	1	-	-	-	1
3,000-3,199	1	-	-	-	1
3,200-3,399	3	-	-	-	3
3,400-3,599	3	-	-	-	3
3,600-3,799	1	1	-	-	-
3,800-3,999	-	-	-	-	-
4,000-4,199	1	-	-	-	1
4,200-4,399	1	-	-	-	1
4,400-4,599	3	-	-	-	3
4,600-4,799	1	-	-	-	1
4,800-4,999	-	-	-	-	-
5,000 & Over	2	-	-	-	2

TABLE 10-B

***Pensions Awarded During the Year Ended June 30, 2010
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	Rule of 85
Total	242	89	61	4	88
Under \$200	35	18	16	-	1
200-399	19	10	7	-	2
400-599	31	12	15	3	1
600-799	21	6	11	1	3
800-999	19	7	8	-	4
1,000-1,199	20	5	3	-	12
1,200-1,399	23	10	-	-	13
1,400-1,599	22	9	-	-	13
1,600-1,799	11	2	1	-	8
1,800-1,999	8	3	-	-	5
2,000-2,199	10	2	-	-	8
2,200-2,399	6	2	-	-	4
2,400-2,599	-	-	-	-	-
2,600-2,799	3	-	-	-	3
2,800-2,999	2	2	-	-	-
3,000-3,199	3	-	-	-	3
3,200-3,399	4	-	-	-	4
3,400-3,599	1	-	-	-	1
3,600-3,799	2	1	-	-	1
3,800-3,999	-	-	-	-	-
4,000-4,199	-	-	-	-	-
4,200-4,399	-	-	-	-	-
4,400-4,599	-	-	-	-	-
4,600-4,799	-	-	-	-	-
4,800-4,999	-	-	-	-	-
5,000 & Over	2	-	-	-	2

TABLE 10-C

***Pensions Awarded During the Year Ended June 30, 2010
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	421	143	106	7	165
Under \$200	47	24	22	-	1
200-399	42	18	21	-	3
400-599	53	18	29	4	2
600-799	36	17	14	2	3
800-999	28	11	11	1	5
1,000-1,199	31	8	6	-	17
1,200-1,399	32	13	1	-	18
1,400-1,599	36	15	-	-	21
1,600-1,799	17	2	1	-	14
1,800-1,999	20	7	-	-	13
2,000-2,199	19	3	1	-	15
2,200-2,399	13	2	-	-	11
2,400-2,599	5	-	-	-	5
2,600-2,799	11	1	-	-	10
2,800-2,999	3	2	-	-	1
3,000-3,199	4	-	-	-	4
3,200-3,399	7	-	-	-	7
3,400-3,599	4	-	-	-	4
3,600-3,799	3	2	-	-	1
3,800-3,999	-	-	-	-	-
4,000-4,199	1	-	-	-	1
4,200-4,399	1	-	-	-	1
4,400-4,599	3	-	-	-	3
4,600-4,799	1	-	-	-	1
4,800-4,999	-	-	-	-	-
5,000 & Over	4	-	-	-	4

TABLE 11-A

***Pensions Awarded During the Year Ended June 30, 2010
by Type of Pension and Nearest Age***

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

Nearest Age	Total	Type of Pension			
		Normal	Early	Disability	Rule of 85
Total	179	54	45	3	77
Under 50	1	-	-	1	-
50-54	8	-	1	1	6
55-59	25	1	4	1	19
60-64	84	3	35	-	46
65-69	49	38	5	-	6
70-74	9	9	-	-	-
75 & Over	3	3	-	-	-

TABLE 11-B

***Pensions Awarded During the Year Ended June 30, 2010
by Type of Pension and Nearest Age***

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

Nearest Age	Total	Type of Pension			
		Normal	Early	Disability	Rule of 85
Total	242	89	61	4	88
Under 50	1	-	-	1	-
50-54	7	-	-	1	6
55-59	21	-	8	-	13
60-64	114	-	47	1	66
65-69	78	68	6	1	3
70-74	10	10	-	-	-
75 & Over	11	11	-	-	-

TABLE 11-C

***Pensions Awarded During the Year Ended June 30, 2010
by Type of Pension and Nearest Age***

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

Nearest Age	Total	Type of Pension			
		Normal	Early	Disability	Rule of 85
Total	421	143	106	7	165
Under 50	2	-	-	2	-
50-54	15	-	1	2	12
55-59	46	1	12	1	32
60-64	198	3	82	1	112
65-69	127	106	11	1	9
70-74	19	19	-	-	-
75 & Over	14	14	-	-	-

TABLE 12-A

***Current Plan Pensions in Force on July 1, 2010
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	Service*
Total	2,852	892	661	151	1,148
Under \$200	284	163	104	7	10
200-399	417	160	193	55	9
400-599	348	120	156	57	15
600-799	226	96	94	18	18
800-999	202	79	47	7	69
1,000-1,199	229	71	24	3	131
1,200-1,399	206	45	14	1	146
1,400-1,599	154	34	10	1	109
1,600-1,799	136	25	4	-	107
1,800-1,999	118	20	4	1	93
2,000-2,199	104	13	2	1	88
2,200-2,399	93	11	5	-	77
2,400-2,599	81	8	-	-	73
2,600-2,799	63	9	-	-	54
2,800-2,999	40	9	1	-	30
3,000-3,199	29	4	1	-	24
3,200-3,399	36	6	-	-	30
3,400-3,599	19	1	2	-	16
3,600-3,799	9	2	-	-	7
3,800-3,999	12	3	-	-	9
4,000-4,199	9	3	-	-	6
4,200-4,399	10	2	-	-	8
4,400-4,599	8	2	-	-	6
4,600-4,799	5	2	-	-	3
4,800-4,999	3	2	-	-	1
5,000 & Over	11	2	-	-	9

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

TABLE 12-B

***Current Plan Pensions in Force on July 1, 2010
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	3,829	1,216	1,363	178	1,072
Under \$200	631	245	366	10	10
200-399	909	323	507	70	9
400-599	618	231	299	64	24
600-799	367	136	111	28	92
800-999	323	93	43	6	181
1,000-1,199	268	61	26	-	181
1,200-1,399	207	47	5	-	155
1,400-1,599	144	26	1	-	117
1,600-1,799	108	15	3	-	90
1,800-1,999	73	11	1	-	61
2,000-2,199	51	11	-	-	40
2,200-2,399	41	5	-	-	36
2,400-2,599	21	1	1	-	19
2,600-2,799	19	1	-	-	18
2,800-2,999	14	2	-	-	12
3,000-3,199	5	1	-	-	4
3,200-3,399	10	1	-	-	9
3,400-3,599	4	-	-	-	4
3,600-3,799	4	2	-	-	2
3,800-3,999	4	2	-	-	2
4,000-4,199	2	-	-	-	2
4,200-4,399	2	1	-	-	1
4,400-4,599	-	-	-	-	-
4,600-4,799	-	-	-	-	-
4,800-4,999	1	1	-	-	-
5,000 & Over	3	-	-	-	3

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

TABLE 12-C

***Current Plan Pensions in Force on July 1, 2010
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	6,681	2,108	2,024	329	2,220
Under \$200	915	408	470	17	20
200-399	1,326	483	700	125	18
400-599	966	351	455	121	39
600-799	593	232	205	46	110
800-999	525	172	90	13	250
1,000-1,199	497	132	50	3	312
1,200-1,399	413	92	19	1	301
1,400-1,599	298	60	11	1	226
1,600-1,799	244	40	7	-	197
1,800-1,999	191	31	5	1	154
2,000-2,199	155	24	2	1	128
2,200-2,399	134	16	5	-	113
2,400-2,599	102	9	1	-	92
2,600-2,799	82	10	-	-	72
2,800-2,999	54	11	1	-	42
3,000-3,199	34	5	1	-	28
3,200-3,399	46	7	-	-	39
3,400-3,599	23	1	2	-	20
3,600-3,799	13	4	-	-	9
3,800-3,999	16	5	-	-	11
4,000-4,199	11	3	-	-	8
4,200-4,399	12	3	-	-	9
4,400-4,599	8	2	-	-	6
4,600-4,799	5	2	-	-	3
4,800-4,999	4	3	-	-	1
5,000 & Over	14	2	-	-	12

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

TABLE 13-A

***Current Plan Pensions in Force on July 1, 2010
by Type of Pension and Nearest Age***

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

Nearest Age	Total	Type of Pension			
		Normal	Early	Disability	Service*
Total	2,852	892	661	151	1,148
Under 50	9	-	-	9	-
50-54	26	-	1	14	11
55-59	123	4	14	23	82
60-64	445	9	121	43	272
65-69	642	154	169	20	299
70-74	586	216	118	15	237
75-79	460	180	102	16	162
80-84	298	160	73	6	59
85-89	182	112	40	4	26
90 & Over	81	57	23	1	-

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

TABLE 13-B

***Current Plan Pensions in Force on July 1, 2010
by Type of Pension and Nearest Age***

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

Nearest Age	Total	Type of Pension			
		Normal	Early	Disability	Service*
Total	3,829	1,216	1,363	178	1,072
Under 50	12	-	-	12	-
50-54	38	-	-	23	15
55-59	161	-	32	23	106
60-64	515	1	187	37	290
65-69	876	240	301	31	304
70-74	791	273	290	28	200
75-79	589	236	235	16	102
80-84	438	208	187	3	40
85-89	256	147	89	5	15
90 & Over	153	111	42	-	-

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

TABLE 13-C

***Current Plan Pensions in Force on July 1, 2010
by Type of Pension and Nearest Age***

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

Nearest Age	Total	Type of Pension			
		Normal	Early	Disability	Service*
Total	6,681	2,108	2,024	329	2,220
Under 50	21	-	-	21	-
50-54	64	-	1	37	26
55-59	284	4	46	46	188
60-64	960	10	308	80	562
65-69	1,518	394	470	51	603
70-74	1,377	489	408	43	437
75-79	1,049	416	337	32	264
80-84	736	368	260	9	99
85-89	438	259	129	9	41
90 & Over	234	168	65	1	-

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

TABLE 14-A

***Special Prior Service Pensions in Force on July 1, 2010
by Monthly Amount***

(Males)

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

TABLE 14-B

***Special Prior Service Pensions in Force on July 1, 2010
by Monthly Amount***

(Females)

Monthly Amount	Total
Total	14
Under \$20	4
20-39	4
40-59	3
60-79	2
80-99	1
100-119	-
120-139	-
140-159	-
160 & Over	-

TABLE 14-C

***Special Prior Service Pensions in Force on July 1, 2010
by Monthly Amount***

(All Members)

Monthly Amount	Total
Total	18
Under \$20	5
20-39	6
40-59	3
60-79	3
80-99	1
100-119	-
120-139	-
140-159	-
160 & Over	-

TABLE 15-A

***Special Prior Service Pensions in Force on July 1, 2010
by Nearest Age***

(Males)

<hr/>	
Nearest Age	Total
Total	<hr/> 4
85-89	-
90-94	1
95-99	2
100 & Over	1
<hr/>	

TABLE 15-B

***Special Prior Service Pensions in Force on July 1, 2010
by Nearest Age***

(Females)

<hr/>	
Nearest Age	Total
Total	14
85-89	-
90-94	3
95-99	7
100 & Over	4
<hr/>	

TABLE 15-C

***Special Prior Service Pensions in Force on July 1, 2010
by Nearest Age***

(All Members)

<hr/>	
Nearest Age	Total
Total	18
85-89	-
90-94	4
95-99	9
100 & Over	5
<hr/>	

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