



NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

Actuarial Valuation and Review
as of July 1, 2012

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 **SEGAL**



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October 15, 2012

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

Members of the Board:

We are pleased to submit this Actuarial Valuation and Review as of July 1, 2012 for the North Dakota Public Employees Retirement System (PERS). It summarizes the actuarial data used in the valuation, establishes the actuarially determined contribution requirements for the 2012-2013 plan year, and analyzes the preceding year's experience.

The census and financial information on which our calculations are based was provided by the Retirement Office staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Tammy F. Dixon, FSA, 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

Tammy F. Dixon, FSA, MAAA, EA
Vice President & Actuary

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Vice President & Associate Actuary

cc: Sparb Collins

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Introduction

This report has been prepared by The Segal Company to present a valuation of the North Dakota Employees' Retirement System as of July 1, 2012. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this 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, 2012;
3. The assets of the System as of June 30, 2012; and
4. Economic assumptions regarding future salary increases and investment earnings and demographic assumptions regarding rates of termination, 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.

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

Highlights

- For the PERS Fund overall, the present rate of contributions is not sufficient to meet the actuarially determined requirement for 2012-2013, based upon the actuarial assumptions and financing objectives approved by the Board, even after taking into account scheduled increases in the statutory rate through 2013. 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 2012-2013 are as follows:

	Amount	Percentage of Payroll	Statutory/ Approved Rate
Main System	\$ 95,704,625	12.24%	5.12%-6.12%*
Judges	997,519	16.33	15.52-16.52*
National Guard	96,613	7.40	6.50
Law Enforcement with prior Main System service	1,011,673	10.69	8.81-9.31**
Law Enforcement without prior Main System service	174,209	7.33	6.93-7.43

* The statutory rate is scheduled to increase in January 2013.

** Bureau of Criminal Investigation rates are 9.31%-10.31%

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

	2012-2013	2011-2012
Main System	12.24%	11.36%
Judges	16.33	15.96
National Guard	7.40	7.08
Law Enforcement with prior Main System service	10.69	10.96
Law Enforcement without prior Main System service	7.33	7.56

- The employer actuarial contribution requirement for the Main System for 2012-2013 is \$95,704,625, or 12.24% of payroll. The statutory rate was 5.12% of payroll as of the valuation date, but is scheduled to increase to 6.12% of payroll on January 1, 2013. A scheduled increase in the member contribution rate of 1% of payroll on January 1, 2013 will also act to decrease the employer actuarial contribution requirement. If the scheduled statutory contribution rate increase were in effect on the valuation date, the employer contribution requirement would be 11.74% of payroll, or 5.62% more than the ultimate statutory rate of 6.12% of payroll. Last year, the actuarially determined rate of 9.86% was 3.74% greater than the ultimate statutory rate of 6.12% of payroll.

- The return on the market value of assets for 2012-2013 for the PERS Fund was -0.20%, and was 21.09% for the preceding year.
- The return on the actuarial value of assets for 2012-2013 for the PERS Fund was -0.15% 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 \$133.6 million.
- The ratio of the actuarial value of assets to the market value of assets for the PERS Fund is 93.9%. Last year, this ratio was also 93.9%.
- A comparison of this year’s funded ratio for PERS to the prior year is as follows:

	July 1, 2012	July 1, 2011
Actuarial Value of Assets	\$1,627,395,636	\$1,650,463,711
Actuarial Accrued Liability	\$2,501,331,473	2,339,833,155
Funded Ratio	65.1%	70.5%

- The unrecognized appreciation represents about 6.1% of the PERS Fund market value of assets. A property of the asset smoothing method used by PERS is that the actuarial value of assets will tend to lag behind the market value of assets. This unrecognized appreciation will be recognized over the next five years. The potential impact may be illustrated as follows:
 - If the unrecognized appreciation were recognized immediately in the actuarial value assets, the funded percentage would increase from 65.1% to 69.3%.
 - If the unrecognized appreciation were recognized immediately in the actuarial value of assets, the actuarial contribution requirement would decrease as follows:

	2012-2013 Actuarial Contribution Rate	2012-2013 Rate Reflecting Unrecognized Appreciation
Main System	12.24%	11.32%
Judges	16.33	13.98
National Guard	7.40	6.63
Law Enforcement with prior Main System service	10.69	10.00
Law Enforcement without prior Main System service	7.33	7.19

- The actuarial valuation report as of July 1, 2012 is based on financial and demographic information as of that date. Changes subsequent to that date, to the extent that they exist, are not reflected and could affect future actuarial costs of the Plan. We are prepared to work with the Board to analyze the effects of any subsequent developments.
- Table 7 details actuarial gains and losses in the Main System for many of the measured demographic assumptions. The gain/(loss) by source is measured each year, and a detailed analysis of the System’s demographic assumptions is reviewed every fourth or fifth year by the completion of an experience study. The most recent experience study was completed in 2010.

Member Characteristics

Active Members

The age, service, compensation and contribution account balance information based on data provided by the Retirement Office for active members as of July 1, 2011 and July 1, 2012 is summarized below:

Category	Year Beginning July 1		Change From Prior Year
	2012	2011	
Main:			
Number	20,738	20,359	1.86%
Average age	47.1	47.3	N/A
Average service credit	10.5	10.6	N/A
Total compensation	\$781,619,798	\$785,388,304	-0.48%
Average compensation	\$37,690	\$38,577	-2.30%
Contribution account balance	\$614,009,333	\$578,394,215	6.16%
Judges:			
Number	49	49	0.00%
Average age	58.1	57.1	N/A
Average service credit	17.6	16.5	N/A
Total compensation	\$6,107,616	\$6,197,204	-1.45%
Average compensation	\$124,645	\$126,474	-1.45%
Contribution account balance	\$6,213,222	\$4,317,555	43.91%
National Guard:			
Number	32	30	6.67%
Average age	36.2	36.3	N/A
Average service credit	5.4	5.7	N/A
Total compensation	\$1,305,436	\$1,323,562	-1.37%
Average compensation	\$40,795	\$44,119	-7.53%
Contribution account balance	\$395,298	\$406,694	-2.80%
Law Enforcement with prior Main System service:			
Number	207	196	5.61%
Average age	39.7	40.0	N/A
Average service credit	8.0	8.3	N/A
Total compensation	\$9,467,445	\$8,825,750	7.27%
Average compensation	\$45,736	\$45,029	1.57%
Contribution account balance	\$5,289,674	\$4,947,017	6.93%
Law Enforcement without prior Main System service:			
Number	65	61	6.56%
Average age	38.0	37.7	N/A
Average service credit	3.3	2.5	N/A
Total compensation	\$2,378,196	\$2,434,592	-2.32%
Average compensation	\$36,588	\$39,911	-8.33%
Contribution account balance	\$341,518	\$248,554	37.40%
All active members:			
Number	21,091	20,695	1.91%
Average age	47.0	47.2	N/A
Average service credit	10.3	10.6	N/A
Total compensation	\$800,878,490	\$804,169,412	-0.41%
Average compensation	\$37,973	\$38,858	-2.28%
Contribution account balance	\$626,249,095	\$588,314,035	6.45%

Distributions of the active members by sex, age, and service are presented in Tables 9-A, 9-B and 9-C of the Appendix. Tables 10-A, 10-B and 10-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:

Active Members Eligible for:	Main System	Judges	National Guard	Law Enforcement with prior Main System Service	Law Enforcement without prior Main System Service	Total
Retirement:						
Normal	744	7	0	29	2	782
Rule of 85	1,365	5	0	0	0	1,370
Early Retirement	<u>3,565</u>	<u>19</u>	<u>2</u>	<u>13</u>	<u>3</u>	<u>3,602</u>
Total Retirement	5,674	31	2	42	5	5,754
Deferred Retirement	<u>9,740</u>	<u>14</u>	<u>19</u>	<u>87</u>	<u>18</u>	<u>9,878</u>
Total vested	15,414	45	21	129	23	15,632
Nonvested	<u>5,324</u>	<u>4</u>	<u>11</u>	<u>78</u>	<u>42</u>	<u>5,459</u>
Total	20,738	49	32	207	65	21,091

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:

Original System	Current System						Total
	Main System	Judges	National Guard	Law Enforcement with prior Main System Service	Law Enforcement without prior Main System Service	Highway Patrol	
Main System	-	22	2	45	28	25	122
Judges	1	-	-	-	-	-	1
National Guard	2	-	-	-	-	-	2
Law Enforcement with prior Main System service	12	-	-	-	1	-	13
Law Enforcement without prior Main System service	4	-	-	1	-	-	5
Highway Patrol	<u>9</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>-</u>	<u>-</u>	<u>10</u>
Total	28	22	2	47	29	25	153

Inactive Members

There were 3,624 inactive members (including 1 from Judges, 8 from National Guard, 25 from Law Enforcement with prior Main System service, and 6 from Law Enforcement without prior Main System service) as of July 1, 2012 with vested rights to deferred retirement benefits. The average deferred monthly benefit for this group was \$399. There were also 37 members from the Main System and 3 members from National Guard on leave of absence. For these groups, a liability is carried for their deferred retirement benefits.

There were 3,502 inactive members that are due refunds (including 16 from National Guard, 24 from Law Enforcement with prior Main System service, and 9 from Law Enforcement without prior Main System service).

Retired Members

There were 7,551 pensioners and 752 beneficiaries receiving average monthly benefits of \$981 as of July 1, 2012. During the year ended June 30, 2012, 684 members were awarded a pension. Tables 11-A through 12-C present the average monthly amounts and ages by type of pension for pensions awarded during the year ended June 30, 2012. Tables 13-A through 14-C present the same information for all pensions in pay status as of June 30, 2012.

Benefit Experience

New Awards

During the fiscal year ended in June 2012, 684 pensions became effective. The average monthly benefit for these pensioners was \$1,479 and their average age at retirement was 62.7. Last year, the average benefit among new pensioners was \$1,396. The new pensioners are presented in Tables 11-A, 11-B, 11-C, 12-A, 12-B and 12-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, 2012</u>	<u>July 1, 2011</u>
Normal	243	201
Rule of 85	244	204
Early	174	130
Disability	<u>23</u>	<u>17</u>
Total	684	552

Pensioners

Since benefits became payable under the current retirement program, a total of 10,669 retirement pensions have been awarded, of which 7,551 remained on the June 2012 rolls (including 25 retired Judges and 46 retired members of the National Guard/Law Enforcement). In addition, 25 pensions were in suspended status as of June 30, 2012. Distributions of the pensioners are presented in Tables 13-A, 13-B, 13-C, 14-A, 14-B and 14-C in Appendix B by sex, type of pension, monthly benefit amount, and current age.

For the pensions in force on July 1, 2012, the average monthly benefit was \$1,013, an increase of \$54 from \$959 a year earlier. The average age of these pensioners on the valuation date was 72.0 years.

Beneficiaries

As of July 1, 2012, monthly benefit payments were being made to 752 beneficiaries, including 9 beneficiaries of Judges and 1 beneficiary of National Guard. The monthly payments to beneficiaries in payment status total \$501,002.

Prior Service Pensioners

As of July 1, 2012, there were 13 pensioners receiving monthly benefits totaling \$498 under the Special Prior Service Pension provisions of the System. The current average age of Prior Service pensioners was 98.4 years, and the average monthly benefit was \$38. 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 15 and 16 in Appendix B provide a breakdown of these pensioners by sex, type of pension, monthly benefit amount, and current age.

Assets

Market Value of Assets

As shown in the draft financial statements as of June 30, 2012, the combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen's Retirement System (HPRS) was \$1,785,190,368, a decrease of \$26 million compared to \$1,810,762,019 a year earlier. This year's combined market value represents a decrease of 1.4% from 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, 2012</u>	<u>July 1, 2011</u>
Main System	\$1,683,377,253	\$1,708,264,257
Judges	32,217,585	32,368,881
National Guard	2,355,363	2,315,331
Law Enforcement with prior Main System service	15,219,249	14,590,482
Law Enforcement without prior Main System service	<u>777,803</u>	<u>517,647</u>
Total	\$1,733,947,253	\$1,758,056,598

The rate of return on the market value basis for the PERS Fund was -0.20% for the year ended June 30, 2012.

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, if the investment return attributable to net interest and dividends is less than the assumed rate of return.

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 \$1,675,489,845 as of June 30, 2012. The determination of the combined actuarial asset value is shown in Table 1. This table shows that there is approximately \$110 million of appreciation that will be recognized in future years.

Table 2 summarizes the combined investment results over the previous ten-year period. Over this period, the earnings of \$665,319,700 on an actuarial value basis represented an average annual return of 4.73%. For the 2011-2012 year, the actuarial rate of return on the combined assets was -0.15%.

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, 2012</u>	<u>July 1, 2011</u>
Main System	\$1,579,933,179	\$1,603,718,656
Judges	30,237,804	30,387,909
National Guard	2,210,625	2,173,633
Law Enforcement with prior Main System service	14,284,021	13,697,546
Law Enforcement without prior Main System service	<u>730,007</u>	<u>485,967</u>
Total	\$1,627,395,636	\$1,650,463,711

Chart 1 on page 14 shows the historical asset values for the PERS Fund on both an actuarial and market value basis. This graph shows that the market value of assets is currently larger than the actuarial value.

Income and disbursements for 2012 and 2011 on an actuarial value basis are summarized in Table 4, and a summary statement of assets is shown in Table 5 for the PERS Fund. The progress of the PERS Fund for the last ten years is provided in Table 6. 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

For your information the investment returns on market value and on an actuarial basis for the last ten years for the combined PERS and HPRS fund are shown below. The assumed rate of return is expected to be earned over the long term, as the obligations of pension plans are expected to continue for the lifetime of its active and inactive participants.

<u>Year Ending June 30</u>	<u>Market Value</u>	<u>Actuarial Value</u>
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
2011	21.09	3.31
2012	(0.20)	(0.15)

It is desirable to have a level and predictable pension plan cost from one year to the next. Under the asset valuation method, the full value of market fluctuations is not recognized in a single year, and, as a result, the asset value and the contribution requirements are more stable. Chart 3 on page 19 illustrates the smoothing effect that results from using an actuarial value of assets.

TABLE 1***Determination of Actuarial Value of Assets
(for PERS and HPRS) as of June 30, 2012 and 2011***

<u>Year Ending</u>	<u>Total Appreciation (Depreciation)*</u>	<u>June 30, 2012</u>		<u>June 30, 2011</u>	
		<u>Percent Deferred</u>	<u>Amount Deferred</u>	<u>Percent Deferred</u>	<u>Amount Deferred</u>
June 30, 2008	\$(133,303,450)	0%	\$0	20%	\$(26,660,690)
June 30, 2009	(463,523,678)	20%	(92,704,735)	40%	(185,409,471)
June 30, 2010	153,004,660	40%	61,201,864	60%	91,802,796
June 30, 2011	288,857,273	60%	173,314,364	80%	231,085,818
June 30, 2012	(40,138,712)	80%	<u>(32,110,970)</u>	N/A	<u>0</u>
Total Deferred as of Valuation Date			\$109,700,523		\$110,818,453
(a)	Total Appreciation (Depreciation) for last five Plan Years		(195,103,907)		130,066,243
(b)	Write-Up/(Down) Amount for the year - equals 20% of (a)		(39,020,781)		26,013,248
			<u>June 30, 2012</u>		<u>June 30, 2011</u>
Market Value of Assets			\$1,785,190,368		\$1,810,762,019
Less: Deferred Appreciation (Depreciation)			<u>109,700,523</u>		<u>110,818,453</u>
Actuarial value of assets			\$1,675,489,845		\$1,699,943,566
Actuarial Value as a Percent of Market Value			93.9%		93.9%

* Interest and dividends are recognized immediately. Realized and unrealized appreciation (depreciation) is spread over five years.

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
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
2011	28,830,100	1.74	26,013,200	1.57	54,843,300	3.31
2012	36,570,500	2.17	(39,020,800)	(2.32)	(2,450,300)	(0.15)
Total for Last Ten Years	\$305,732,800		\$359,586,900		\$ 665,319,700	
Average Yield for last Ten Years						4.73%

* Net of investment expenses.

** Includes write-up (down).

TABLE 3*Allocation of Combined (PERS and HPRS) Actuarial Value of Assets*

	July 1, 2012		July 1, 2011	
	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Market Value</u>	<u>Actuarial Value</u>
PERS Main System	\$1,683,377,253	\$1,579,933,179	\$1,708,264,257	\$1,603,718,656
PERS Judges	32,217,585	30,237,804	32,368,881	30,387,909
PERS National Guard	2,355,363	2,210,625	2,315,331	2,173,633
PERS Law Enforcement with prior Main System service	15,219,249	14,284,021	14,590,482	13,697,546
PERS Law Enforcement without prior Main System service	<u>777,803</u>	<u>730,007</u>	<u>517,647</u>	<u>485,967</u>
PERS Combined	\$1,733,947,253	\$1,627,395,636	\$1,758,056,598	\$1,650,463,711
Highway Patrol	<u>51,243,115</u>	<u>48,094,209</u>	<u>52,705,421</u>	<u>49,479,855</u>
Total	\$1,785,190,368	\$1,675,489,845	\$1,810,762,019	\$1,699,943,566

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

CHART 1

Market Value of Assets vs. Actuarial Value of Assets for PERS

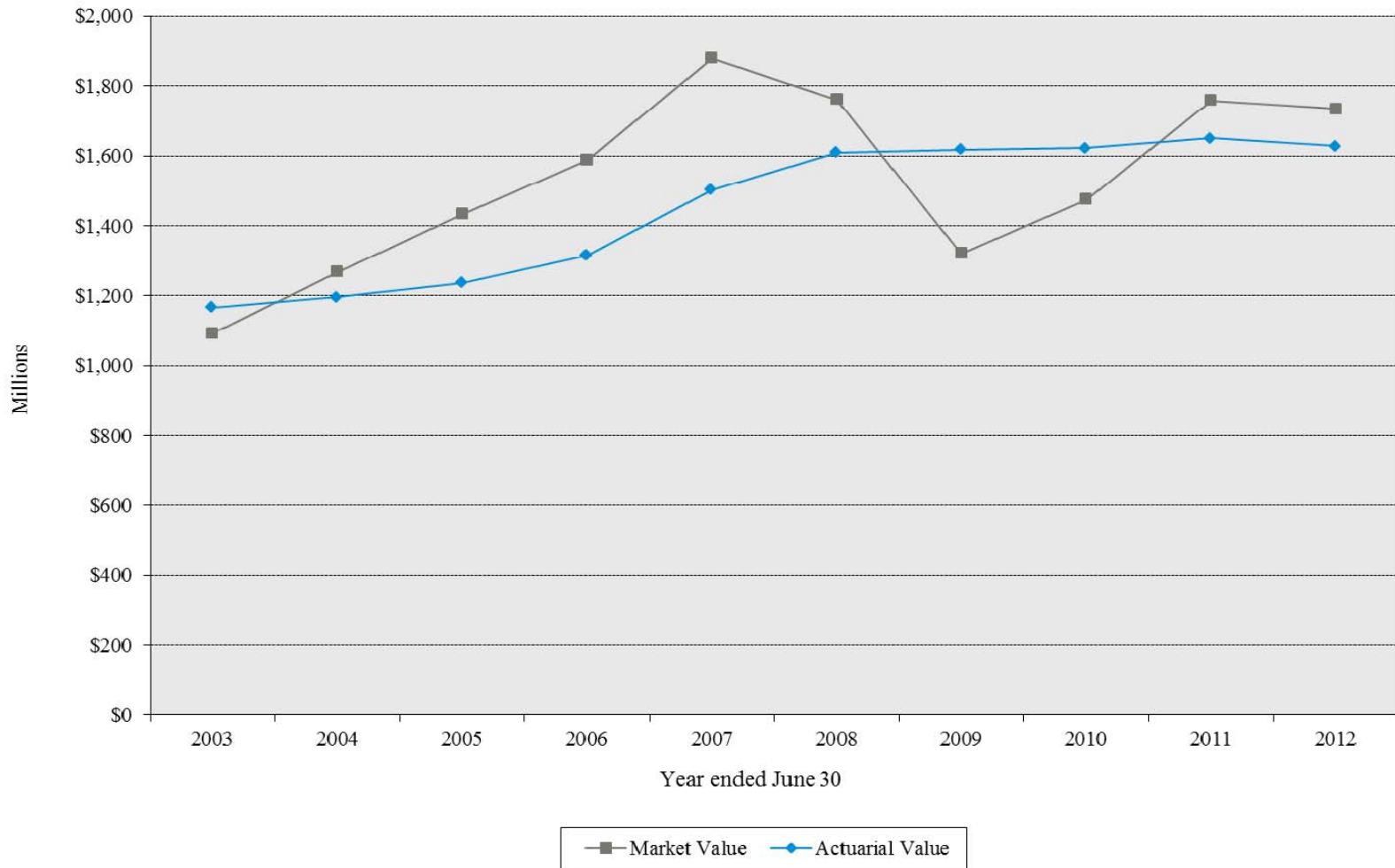


TABLE 4
Summary Statement of Income and Disbursements for PERS
on an Actuarial Value Basis

	Year Ended June 30, 2012	Year Ended June 30, 2011
Contribution Income:		
Employer Contributions	\$38,005,854	\$32,278,056
Member Contributions	36,095,927	30,479,702
Service Credit Repurchases	<u>6,491,339</u>	<u>3,797,333</u>
Total Contribution Income	\$80,593,120	\$66,555,091
Less: Administrative Expenses	<u>(1,856,915)</u>	<u>(1,797,287)</u>
Net Contribution Income	<u>\$78,736,205</u>	<u>\$64,757,804</u>
Investment Income:		
Interest and Dividends	\$41,845,593	\$34,500,138
Miscellaneous Income	20,004	2,129
Less: Investment Expenses	<u>(6,359,713)</u>	<u>(6,701,848)</u>
Net Interest and Dividends	\$35,505,884	\$27,800,419
Write-up/(down) of Assets	<u>(37,928,609)</u>	<u>(25,423,177)</u>
Net Investment Income	<u>\$(2,422,725)</u>	<u>\$53,223,596</u>
Total Income Available for Benefit Payments and Reserves	<u>\$76,313,480</u>	<u>\$117,981,400</u>
Benefit Payments:		
Pension Benefits	\$(94,163,517)	\$(84,307,030)
Transfers to Other Plans	(412,993)	(264,686)
Refunds	<u>(4,805,045)</u>	<u>(4,669,072)</u>
Total Benefit Payments	<u>\$(99,381,555)</u>	<u>\$(89,240,788)</u>
Addition to Reserve for Future Benefit Payments	\$(23,068,075)	\$28,740,612
Actuarial Value of Assets, Start of Year	<u>1,650,463,711</u>	<u>1,621,723,099</u>
Actuarial Value of Assets, End of Year	<u>\$1,627,395,636</u>	<u>\$1,650,463,711</u>

TABLE 5

*Summary Statement of Assets for PERS
(based on unaudited financial statements)*

	Year Ended June 30, 2012	Year Ended June 30, 2011
Cash	\$3,703,624	\$2,808,985
Receivables:		
Contribution receivable	\$6,493,953	\$4,688,613
Interest receivable	2,618,666	2,666,991
Due from fiduciary funds	239,522	276,844
Due from proprietary funds	671	225
Due from other state agencies	<u>42,455</u>	<u>3,352</u>
Total receivables	9,395,267	7,636,025
Investments:		
Domestic equities	\$574,705,859	\$703,847,078
International equities	290,235,153	262,381,505
International fixed income	88,232,357	85,111,321
Domestic fixed income	304,882,279	510,392,764
Real estate	334,476,268	98,906,281
Alternative investments	100,252,385	61,304,374
Invested cash	<u>27,671,620</u>	<u>25,206,160</u>
Total investments	1,720,455,921	1,747,149,483
Equipment	707	0
Software (not in production)	102,025	76,022
Software (net of amortization)	3,038,443	3,406,843
Equipment	<u>0</u>	<u>0</u>
Total assets	1,736,695,987	1,761,077,358
Liabilities:		
Salaries payable	\$(71,568)	\$(81,293)
Accounts payable	(2,444,324)	(2,719,239)
Due to fiduciary funds	(126,782)	(116,601)
Due to proprietary funds	0	(1,634)
Due to other state agencies	(22,268)	(19,451)
Benefits payable	0	0
Securities lending collateral	0	0
Accrued compensated absences	<u>(83,792)</u>	<u>(82,542)</u>
Total liabilities	(2,748,734)	(3,020,760)
Net assets at market value	<u>\$1,733,947,253</u>	<u>\$1,758,056,598</u>
Net assets at actuarial value	<u>\$1,627,395,636</u>	<u>\$1,650,463,711</u>

TABLE 6***Progress of the PERS Fund through June 30, 2012
on an 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
2002							\$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
2011	32,278,056	34,277,035	(1,797,287)	53,223,596	(264,686)	(88,976,102)	1,650,463,711
2012	38,005,854	42,587,266	(1,856,915)	(2,422,725)	(412,993)	(98,968,562)	1,627,395,636
Total for Last Ten Years	\$258,256,272	\$282,850,136	\$(12,531,734)	\$ 644,216,905	\$ 5,288,419	\$ (700,685,191)	

* Includes repurchases of service credit.

CHART 2

**Income and Disbursement for PERS
on an Actuarial Value Basis**

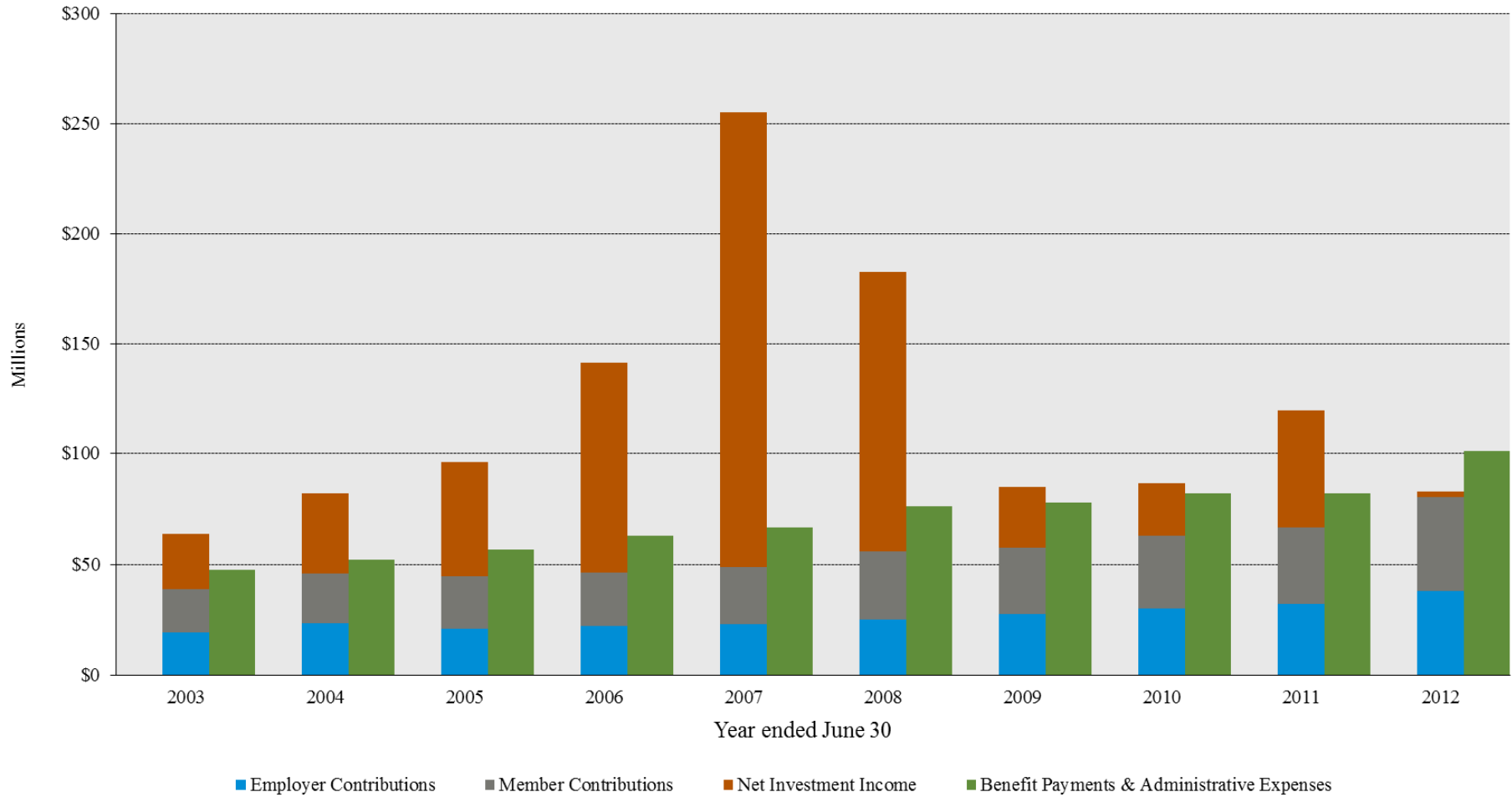
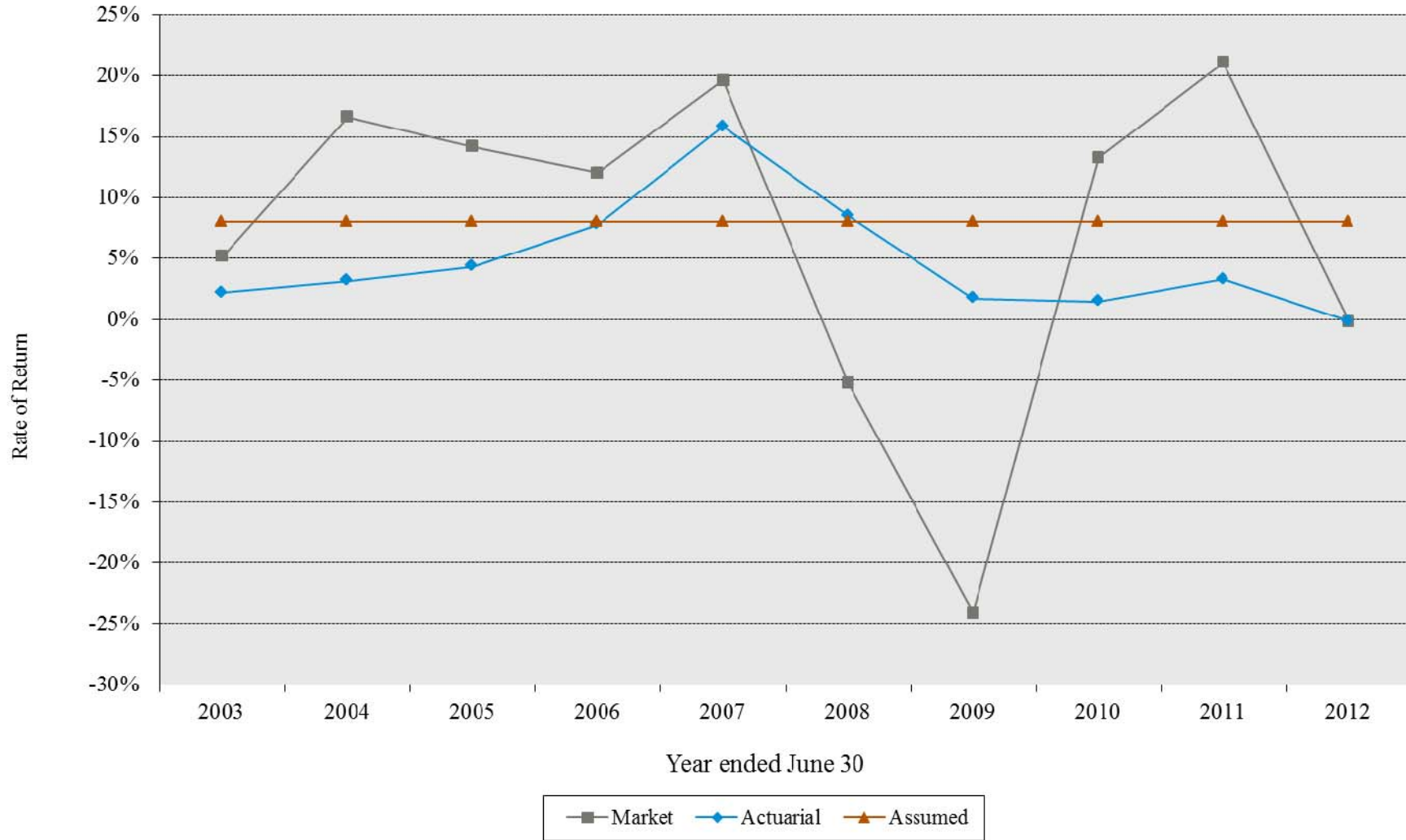


CHART 3

**Market Value and Actuarial Rates of Return
(PERS and HPRS Combined)**



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 2012-2013 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</u> <u>2012 – 2013</u>	<u>Percentage</u> <u>of Payroll</u>
Total normal cost	\$77,408,956	9.90%
Less: Member contributions	<u>(42,989,089)</u>	<u>(5.50)</u>
Net employer normal cost	\$34,419,867	4.40%
Administrative expense allowance	1,100,000	0.14
Amortization payment (credit)	<u>60,184,758</u>	<u>7.70</u>
Total employer contribution requirement	\$95,704,625	12.24%

Covered payroll is \$781,619,798.

The total statutory contribution rate is 10.12% of payroll (5.00% for the member and 5.12% for the employer) as of July 1, 2012. An increase of 2.00% of payroll is scheduled for January 1, 2013, with the member and employer each being responsible for one-half of the increase. Compared to the ultimate statutory employer rate of 6.12%, and taking into account the ultimate statutory member rate of 6.00%, the plan has a deficit of 5.62% of payroll. This results in an infinite effective amortization period. The contribution net of normal cost and administrative expenses is never projected to exceed interest on the Unfunded Actuarial Accrued Liability, and the Unfunded Actuarial Accrued Liability is not being amortized.

Even if deferred asset appreciation were taken into account on the valuation date, the effective amortization period would still be infinite.

The total employer actuarial contribution requirement was 11.36% of payroll last year. Since then, actual experience of the System during 2011-2012 has changed the actuarial contribution requirement. Table 7 presents a detailed explanation of the factors that changed the contribution requirement from July 1, 2011 to July 1, 2012.

Judges

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2012 – 2013</u>	<u>Percentage of Payroll</u>
Total normal cost	\$1,136,783	18.61%
Less: Member contributions	<u>(396,995)</u>	<u>(6.50)</u>
Net employer normal cost	\$739,788	12.11%
Administrative expense allowance	7,500	0.12
Amortization payment (credit)	<u>250,231</u>	<u>4.10</u>
Total employer contribution requirement	\$997,519	16.33%

Covered payroll is \$6,107,616.

The total statutory contribution rate is 21.52% of payroll (6.00% for the member and 15.52% for the employer) as of July 1, 2012. An increase of 2.00% of payroll is scheduled for January 1, 2013, with the member and employer each being responsible for one-half of the increase. Compared to the ultimate statutory employer rate of 16.52%, and taking into account the ultimate statutory member rate of 7.00%, the plan has a margin of 0.69% of payroll. This results in an effective amortization period of 15.4 years.

If deferred asset appreciation were taken into account on the valuation date, the effective amortization period would be 5.1 years.

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

	<u>Percentage of Payroll</u>
Employer contribution rate as of July 1, 2011	15.96%
Plan change*	(1.00)
Investment loss	3.07
Contribution gain	(0.04)
Other Plan experience during the year	(1.51)
Effect of maintaining 20-year amortization schedule	<u>(0.15)</u>
Employer contribution rate as of July 1, 2012	16.33%

* *The scheduled 1.00% of payroll increase in the member contribution rate will ultimately decrease the employer cost rate by approximately 1.00% of payroll, but only one-half of the increase is reflected in the projected contributions for the 2012-2013 plan year.*

National Guard

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2012 – 2013</u>	<u>Percentage of Payroll</u>
Total normal cost	\$131,594	10.08%
Less: Member contributions	<u>(52,217)</u>	<u>(4.00)</u>
Net employer normal cost	\$79,377	6.08%
Administrative expense allowance	3,000	0.23
Amortization payment (credit)	<u>14,236</u>	<u>1.09</u>
Total employer contribution requirement	\$96,613	7.40%

Covered payroll is \$1,305,436.

The approved employer contribution rate is 6.50% of payroll. Hence, approved contributions are less than the actuarial contribution requirement shown above by 0.90% of payroll. This results in an infinite effective amortization period. The contribution net of normal cost and administrative expenses is never projected to exceed interest on the Unfunded Actuarial Accrued Liability, and the Unfunded Actuarial Accrued Liability is not being amortized.

If deferred asset appreciation were taken into account on the valuation date, the effective amortization period would be 49.0 years.

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

	<u>Percentage of Payroll</u>
Employer contribution rate as of July 1, 2011	7.08%
Investment loss	1.02
Contribution gain	(0.29)
Other Plan experience during the year	(0.37)
Effect of maintaining 20-year amortization schedule	<u>(0.04)</u>
Employer contribution rate as of July 1, 2012	7.40%

Law Enforcement with prior Main System service

The components of the actuarial contribution requirement are shown below:

	<u>Amount for</u> <u>2012 – 2013</u>	<u>Percentage</u> <u>of Payroll</u>
Total normal cost	\$ 936,380	9.89%
Less: Member contributions	<u>(465,873)</u>	<u>(4.92)</u>
Net employer normal cost	\$470,507	4.97%
Administrative expense allowance	2,500	0.03
Amortization payment (credit)	<u>538,666</u>	<u>5.69</u>
Total employer contribution requirement	\$1,011,673	10.69%

Covered payroll is \$9,467,445.

The approved employer contribution rate is 8.81% of payroll (9.31% for Bureau of Criminal Investigation (BCI)). The statutory member contribution rate is 5.00% of payroll as of July 1, 2012 for members employed by the BCI and 4.50% of payroll as of July 1, 2012 for all other members in this segment. An increase is scheduled for January 1, 2013. The increase will be 2.00% of payroll for members employed by the BCI and 1.00% for all other members in this segment with the member and employer each being responsible for one-half of the increase. Compared to the ultimate statutory employer rate of 10.31% for BCI and 9.31% for other members (an average rate of 9.53%) and taking into account the ultimate member statutory rates (an average rate of 5.23%), the plan has a deficit of 0.85%. Under the current policy and statute, this segment has an effective amortization period of 25.7 years.

If deferred asset appreciation were taken into account on the valuation date, the effective amortization period would be reduced to 21.2 years.

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

	<u>Percentage</u> <u>of Payroll</u>
Employer contribution rate as of July 1, 2011	10.96%
Plan change*	(0.39)
Investment loss	0.91
Contribution gain	(0.04)
Other Plan experience during the year	(0.54)
Effect of maintaining 20-year amortization schedule	<u>(0.21)</u>
Employer contribution rate as of July 1, 2012	10.69%

** The scheduled 1.00% of payroll increase in the member contribution rate for BCI employees and 0.50% of payroll increase for other members will ultimately decrease the employer cost rate by 0.62% of payroll, but only one-half of the increase is reflected in the projected contributions for the 2012-2013 plan year.*

Law Enforcement without prior Main System service

The components of the actuarial contribution requirement are shown below:

	<u>Amount for 2012 – 2013</u>	<u>Percentage of Payroll</u>
Total normal cost	\$265,541	11.17%
Less: Member contributions	<u>(112,964)</u>	<u>(4.75)</u>
Net employer normal cost	\$152,577	6.42%
Administrative expense allowance	7,500	0.32
Amortization payment (credit)	<u>14,132</u>	<u>0.59</u>
Total employer contribution requirement	\$174,209	7.33%

Covered payroll is \$ 2,378,196.

The approved employer contribution rate is 6.93% of payroll. The employer rate is scheduled to increase by 0.50% of payroll as of January 1, 2013. The statutory member contribution rate is 4.50% of payroll as of July 1, 2012. An increase of 0.50% of payroll is scheduled for January 1, 2013. Taking into account the ultimate statutory member rate of 5.00%, the plan has a margin of 0.35% of payroll. This results in an effective amortization period of 11.5 years.

If deferred asset appreciation were taken into account on the valuation date, the effective amortization period would be reduced to 8.5 years.

A reconciliation of the change in the contribution requirement since the previous valuation follows:

	<u>Percentage of Payroll</u>
Employer contribution rate as of July 1, 2011	7.56%
Plan change*	<u>(0.50)</u>
Investment loss	0.20
Contribution loss	0.02
Other Plan experience during the year	0.07
Effect of maintaining 20-year amortization schedule	<u>(0.02)</u>
Employer contribution rate as of July 1, 2012	7.33%

** The scheduled 0.50% of payroll increase in the member contribution rate will ultimately decrease the employer cost rate by approximately 0.50% of payroll, but only one-half of the increase is reflected in the projected contributions for the 2012-2013 plan year.*

Main System, Judges, National Guard and Law Enforcement Combined

The components of the actuarial contribution requirement are shown below.

	<u>Amount for</u> <u>2012 – 2013</u>	<u>Percentage</u> <u>of Payroll</u>
Total normal cost	\$79,879,254	9.97%
Less: Member contributions	<u>(44,017,138)</u>	<u>(5.50)</u>
Net employer normal cost	\$35,862,116	4.47%
Administrative expense allowance	1,120,500	0.14
Amortization payment (credit)	<u>61,002,024</u>	<u>7.62</u>
Total employer contribution requirement	\$97,984,640	12.23%

Covered payroll is \$800,878,491.

TABLE 7
Main System
Reconciliation of the Change in Employer Contribution Requirement

	Percent of Payroll
Employer Contribution Requirement as of July 1, 2011	11.36%
<i>Retired Life Mortality</i>	(0.75)%
The release of liability due to deaths among retirees and beneficiaries was greater than expected, decreasing the employer contribution requirement.	
<i>Active Life Mortality</i>	0.00%
The release of liability due to deaths among active members had a minimal impact on the employer contribution requirement.	
<i>Disability Incidence</i>	0.00%
The net change in liability due to disability retirements had a minimal impact on the employer contribution requirement.	
<i>Withdrawals</i>	(0.15)%
The release of liability due to withdrawals prior to retirement when compared to expected values, was not significant.	
<i>Inactive Vested Life Mortality and Retirement</i>	0.27%
The release of liability due to deaths and retirements among inactive vested participants was less than expected, increasing the employer contribution requirement.	
<i>Retirement</i>	0.13%
The net change in liability due to non-disability retirements was greater than expected, increasing the employer contribution requirement.	
<i>Investments</i>	1.20%
The rate of return on the actuarial value of assets was less than assumed, increasing the employer contribution requirement.	
<i>Salary Scale and Service</i>	(0.57)%
Salaries increased less than expected, decreasing the employer contribution requirement.	
<i>Contributions</i>	0.45%
Actual contributions received by the System were less than the actuarially determined amount, increasing the employer contribution requirement.	

TABLE 7 (Continued)

Main System
Explanation of Change in Employer Contribution Requirement

	Percent of Payroll
<i>Administrative Expenses</i>	0.01%
Actual expenses were more than expected, increasing the employer contribution requirement.	
<i>New and Reinstated Members</i>	0.05%
The addition of new and reinstated members minimally increased the plan liabilities and the employer contribution requirement.	
<i>Change in Size and Composition of Membership and Miscellaneous Experience</i>	0.60%
The demographic characteristics of the membership changed during the year, increasing the employer contribution requirement.	
<i>Plan Provision Changes</i>	(0.07)%
The increase in the contribution rates decreases the Plan deficit and the employer contribution requirement.	
<i>Assumption Changes</i>	0.00%
There were no changes in actuarial assumptions.	
<i>Funding Schedule</i>	(0.29)%
The effect of maintaining a 20-year funding schedule decreases the employer contribution requirement.	
Employer Contribution Requirement as of July 1, 2012	12.24%

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. High ratios indicate a well-funded plan with assets sufficient to cover the plan's liabilities. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors. 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. We are available to project the disclosure amounts based on the new GASB Statements No. 67 and 68.

Historical Results

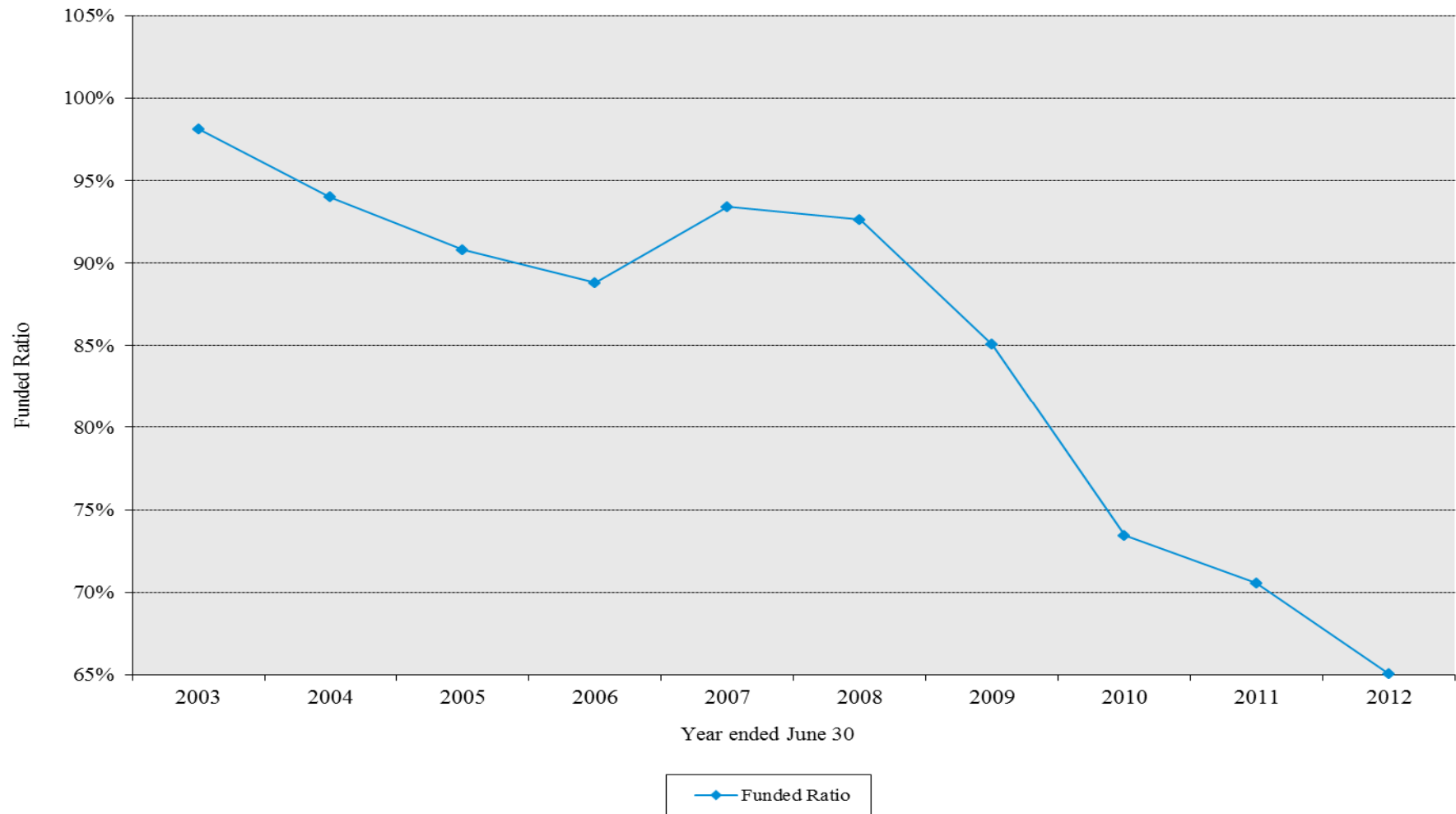
The funded ratios (under the GASB Statement No. 25 standard) for the last ten years are developed in Table 8. These ratios are graphed in Chart 4 on page 30. They show that the funded ratio has deteriorated since July 1, 2001. This is due to investment losses and the fact that the statutory contribution 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 8**Funded Ratio for PERS**

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
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
2011	2,339,833,200	1,650,463,700	70.5
2012	2,501,331,473	1,627,395,636	65.1

CHART 4
Funded Ratio for PERS
(Ratio of Actuarial Value of Assets to Actuarial Accrued Liability)



Actuarial Assumptions and Cost Methods

The actuarial assumptions and cost methods used in the actuarial valuation as of July 1, 2012 are the same as those used in the previous valuation. A summary of the actuarial assumptions and cost methods follows. Details can be found in Exhibit II of Appendix A.

Investment Return

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

Salary Increases

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

For the Main System, National Guard and Law Enforcement, the assumed salary increases are service-related during the first five years of service. After five years of service, salary increases are age-related.

For Judges, the assumed salary increase is 5.00% per year for all years of service.

Inflation

The assumed inflation rate is 3.5% per annum.

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 on the next page shows sample mortality rates and life expectancies underlying the healthy-life 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.

Withdrawal rates vary by age. 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. Withdrawal rates end upon the earlier of eligibility for early retirement or the Rule of 85 eligibility.

Retirement Rates

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>
51-54		8%
55	2%	8
56-59	2	10
60	4	10
61	10	20
62	20	35
63	15	25
64	10	30
65		30
66-74		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.

Administrative Expenses

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

Marital Status

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, if the investment return attributable to net interest and dividends is less than the assumed rate of return.

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 dollar amount of the UAAL would grow from year to year even if the actuarially required contribution were made and all actuarial assumptions were met.

A. Actuarial Valuation Certificate

October 15, 2012

NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM

This is to certify that The Segal Company (“Segal”) has prepared an Actuarial Valuation of the System as of July 1, 2012 in accordance with generally accepted actuarial principles and practices. It has been prepared at the request of the Board to assist in administering the System. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board and may only be provided to other parties in its entirety.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan’s funded status); and changes in plan provisions or applicable law.

The valuation was based on information supplied by the Retirement Office with respect to member and financial data. The Segal Company does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

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. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Certain assumptions, including interest rates, mortality tables and others identified in the report are prescribed by the Board and in our opinion, are reasonably related to the experience of the Plan and the expectations for the Plan. The Board is also responsible for selecting the actuarially required contribution, actuarial cost method and asset valuation method.

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

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

Tammy F. Dixon, FSA, MAAA, EA
Vice President & Actuary

Laura L. Mitchell, MAAA, EA
Vice President & Associate Actuary

EXHIBIT I-A
ACTUARIAL VALUATION RESULTS
MAIN SYSTEM

1.	Actuarial accrued liability on July 1, 2012:		
	a. Active members	\$1,396,091,287	
	b. Special prior service pensions	17,440	
	c. Retired members and beneficiaries.....	875,456,409	
	d. Inactive non-retired members	<u>170,734,074</u>	
	e. Total.....		\$2,442,299,210
2.	Assets at actuarial value (\$1,683,377,253 at market value)		1,579,933,179
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		862,366,031
4.	Member and employer normal cost for ensuing year*		77,408,956
5.	Estimated annual salaries of covered members		781,619,798
6.	Member normal cost - equals 5.5% of (5)		42,989,089
7.	Employer normal cost for ensuing year - equals (4) minus (6)		34,419,867
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		60,184,758
9.	Administrative expenses		1,100,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9).....		95,704,625
11.	Total employer cost as percentage of payroll – equals (10) divided by (5).....		12.24%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-B
ACTUARIAL VALUATION RESULTS
JUDGES

1.	Actuarial accrued liability on July 1, 2012:		
	a. Active members	\$19,454,580	
	b. Retired members and beneficiaries.....	13,873,451	
	c. Inactive non-retired members	<u>354,741</u>	
	d. Total.....		\$33,682,772
2.	Assets at actuarial value (\$32,217,585 at market value)		30,237,804
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		3,444,968
4.	Member and employer normal cost for ensuing year*		1,136,783
5.	Estimated annual salaries of covered members		6,107,616
6.	Member normal cost - equals 6.5% of (5)		396,995
7.	Employer normal cost for ensuing year - equals (4) minus (6)		739,788
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		250,231
9.	Administrative expenses		7,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9).....		997,519
11.	Total employer cost as percentage of payroll – equals (10) divided by (5).....		16.33%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-C
ACTUARIAL VALUATION RESULTS
NATIONAL GUARD

1.	Actuarial accrued liability on July 1, 2012:		
	a. Active members	\$1,072,444	
	b. Retired members and beneficiaries.....	973,388	
	c. Inactive non-retired members	<u>368,775</u>	
	d. Total.....		\$2,414,607
2.	Assets at actuarial value (\$2,355,363 at market value)		2,210,625
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		203,982
4.	Member and employer normal cost for ensuing year*		131,594
5.	Estimated annual salaries of covered members		1,305,436
6.	Member normal cost - equals 4% of (5)		52,217
7.	Employer normal cost for ensuing year - equals (4) minus (6)		79,377
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		14,236
9.	Administrative expenses		3,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9).....		96,613
11.	Total employer cost as percentage of payroll – equals (10) divided by (5).....		7.40%

* Adjusted for interest to recognize payments through the year.

EXHIBIT I-D

ACTUARIAL VALUATION RESULTS

LAW ENFORCEMENT WITH PRIOR MAIN SYSTEM SERVICE

1.	Actuarial accrued liability on July 1, 2012:		
	a.	Active members	\$13,134,686
	b.	Retired members and beneficiaries.....	7,830,867
	c.	Inactive non-retired members	<u>1,036,824</u>
	d.	Total.....	\$22,002,377
2.	Assets at actuarial value (\$15,219,249 at market value)		14,284,021
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		7,718,356
4.	Member and employer normal cost for ensuing year*		936,380
5.	Estimated annual salaries of covered members		9,467,445
6.	Member normal cost - equals 4.92%* of (5)		465,873
7.	Employer normal cost for ensuing year - equals (4) minus (6)		470,507
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		538,666
9.	Administrative expenses.....		2,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9).....		1,011,673
11.	Total employer cost as percentage of payroll – equals (10) divided by (5).....		10.69%

* Adjusted for interest to recognize payments through the year.

**Adjusted for Bureau of Criminal Investigation rates.

EXHIBIT I-E

ACTUARIAL VALUATION RESULTS

LAW ENFORCEMENT WITHOUT PRIOR MAIN SYSTEM SERVICE

1.	Actuarial accrued liability on July 1, 2012:		
	a.	Active members	\$829,989
	b.	Retired members and beneficiaries.....	0
	c.	Inactive non-retired members	<u>102,518</u>
	d.	Total.....	\$932,507
2.	Assets at actuarial value (\$777,803 at market value)		730,007
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		202,500
4.	Member and employer normal cost for ensuing year*		265,541
5.	Estimated annual salaries of covered members		2,378,196
6.	Member normal cost - equals 4.75%* of (5)		112,964
7.	Employer normal cost for ensuing year - equals (4) minus (6)		152,577
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		14,132
9.	Administrative expenses.....		7,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9).....		174,209
11.	Total employer cost as percentage of payroll – equals (10) divided by (5).....		7.33%

* 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, 2012:		
	a.	Active members	\$1,430,582,986
	b.	Special prior service pensions	17,440
	c.	Retired members and beneficiaries.....	898,134,115
	d.	Inactive non-retired members	<u>172,596,932</u>
	e.	Total.....	\$2,501,331,473
2.	Assets at actuarial value (\$1,733,947,253 at market value)		1,627,395,636
3.	Unfunded/(Surplus) actuarial accrued liability - equals (1) minus (2)		873,935,837
4.	Member and employer normal cost for ensuing year*		79,879,254
5.	Estimated annual salaries of covered members		800,878,491
6.	Member normal cost.....		44,017,138
7.	Employer normal cost for ensuing year - equals (4) minus (6)		35,862,116
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary*		61,002,024
9.	Administrative expenses.....		1,120,500
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9).....		97,984,640
11.	Total employer cost as percentage of payroll – equals (10) divided by (5).....		12.23%

* 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).

These mortality tables were determined to contain provision appropriate to reasonably reflect future mortality improvement, based on a review of mortality experience in 2010.

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. 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%	14%
30 - 39	16	14	12	12	11	11
40 & Over	12	10	10	8	7	7

EXHIBIT II (continued)

Ultimate withdrawal rates after five years of 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>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

Ultimate withdrawal rates after five years of 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>
51-54		8%
55	2%	8
56-59	2	10
60	4	10
61	10	20
62	20	35
63	15	25
64	10	30
65		30
66-74		20
75		100

Judges:

<u>Age</u>	<u>Rate</u>
60-61	10%
62-64	20
65-69	50
70	100

National Guard and Law Enforcement:

<u>Age</u>	<u>Rate</u>
55-63	20%
64	50
65	100

EXHIBIT II (continued)

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. 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. Inflation:

3.5% per annum.

12. 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)

13. Part-Time Employees:

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

14. 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.

15. 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.

16. 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, if the investment return attributable to net interest and dividends is less than the assumed rate of return.

17. 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

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

None assumed.

19. 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

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

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 minus workers' compensation benefits, 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:

(a) 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.

(b) 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 choose 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.
- 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 180 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 follow:

	Rates Set by Statute		Rates Determined by the Board of Retirement
	<u>Member</u>	<u>Employer</u>	<u>Employer</u>
Main System Full-Time Employees	5.00%	5.12%	
Effective January 2013	6.00%	6.12%	
Main System Part-Time Employees	10.12%	0.00%	
Effective January 2013	12.12%	0.00%	
Judges	6.00%	15.52%	
Effective January 2013	7.00%	16.52%	
National Guard	4.00%		6.50%
	Member Rate for Employees of Political Subdivisions	Member Rate for Employees of the BCI	Rates Determined by the Board of Retirement
			<u>Employer</u>
Law Enforcement with prior Main System service	4.50%	5.00%	9.31%
Effective January 2013	5.00%	6.00%	
Law Enforcement without prior Main System service	4.50%		7.43%
Effective January 2013	5.00%		

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

As a result of legislation passed in 2011, the contribution rates are scheduled to increase in January of 2013 by the following amounts:

	<u>Employees</u>	<u>Employer</u>
Main System Full-Time Employees	1.00%	1.00%
Main System Part-Time Employees	2.00	
Judges	1.00	1.00

	<u>Employees of Political Subdivisions</u>	<u>Employees of the BCI</u>
Law Enforcement	0.50%	1.00%

B. Census Tables

	<u>Table Designation</u>
I. Active Members	
(A) Number of active members grouped by nearest age and years of employment:	
Males	9-A
Females	9-B
All	9-C
(B) Number of active members grouped by nearest age and salary:	
Males	10-A
Females	10-B
All	10-C
II. Current Plan Pensions	
(A) Distribution of pensions awarded during the year by amount of benefit and type of pension:	
Males	11-A
Females	11-B
All	11-C
(B) Distribution of pensions awarded during the year by nearest age and type of pension:	
Males	12-A
Females	12-B
All	12-C
(C) Distribution of pensions in force by amount of benefit and type of pension:	
Males	13-A
Females	13-B
All	13-C
(D) Distribution of pensions in force by nearest age and type of pension:	
Males	14-A
Females	14-B
All	14-C
III. Special Prior Service Pensions	
(A) Distribution of pensions in force by amount of benefit:	15
(B) Distribution of pensions in force by nearest age:	16

TABLE 9-A

*Census of Members in Active Service on July 1, 2012
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	8,307	3,419	1,545	1,097	668	636	439	343	160
Under 20	1	1	0	0	0	0	0	0	0
20 – 24	220	219	1	0	0	0	0	0	0
25 – 29	736	649	85	2	0	0	0	0	0
30 – 34	805	498	252	54	1	0	0	0	0
35 – 39	763	368	193	168	34	0	0	0	0
40 – 44	888	371	185	169	122	40	1	0	0
45 – 49	994	346	186	150	121	149	39	3	0
50 – 54	1,246	364	190	177	134	148	141	88	4
55 – 59	1,274	300	206	170	127	142	149	128	52
60 – 64	965	200	143	135	98	115	81	108	85
65 – 69	309	75	71	47	26	34	25	13	18
70 – 74	75	23	21	17	4	6	2	1	1
75 & over	31	5	12	8	1	2	1	2	0

TABLE 9-B

*Census of Members in Active Service on July 1, 2012
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	12,785	5,142	2,494	1,890	1,076	958	632	389	204
Under 20	4	4	0	0	0	0	0	0	0
20 – 24	286	285	1	0	0	0	0	0	0
25 – 29	907	814	92	1	0	0	0	0	0
30 – 34	1,068	708	302	58	0	0	0	0	0
35 – 39	1,195	643	295	221	35	1	0	0	0
40 – 44	1,409	667	336	221	134	50	1	0	0
45 – 49	1,693	616	373	282	168	158	94	2	0
50 – 54	2,295	631	420	419	240	229	208	137	11
55 – 59	2,117	434	356	376	260	267	170	150	104
60 – 64	1,352	246	229	236	176	204	124	73	64
65 – 69	342	62	71	46	50	44	25	22	22
70 – 74	81	22	13	21	8	5	8	3	1
75 & over	36	10	6	9	5	0	2	2	2

TABLE 9-C

*Census of Members in Active Service on July 1, 2012
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	21,092	8,561	4,039	2,987	1,744	1,594	1,071	732	364
Under 20	5	5	0	0	0	0	0	0	0
20 – 24	506	504	2	0	0	0	0	0	0
25 – 29	1,643	1,463	177	3	0	0	0	0	0
30 – 34	1,873	1,206	554	112	1	0	0	0	0
35 – 39	1,958	1,011	488	389	69	1	0	0	0
40 – 44	2,297	1,038	521	390	256	90	2	0	0
45 – 49	2,687	962	559	432	289	307	133	5	0
50 – 54	3,541	995	610	596	374	377	349	225	15
55 – 59	3,391	734	562	546	387	409	319	278	156
60 – 64	2,317	446	372	371	274	319	205	181	149
65 – 69	651	137	142	93	76	78	50	35	40
70 – 74	156	45	34	38	12	11	10	4	2
75 & over	67	15	18	17	6	2	3	4	2

TABLE 10-A

*Census of Members in Active Service on July 1, 2012
by Nearest Age and Salary*

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

Nearest Age	Annualized Salary										
	Total	Less than \$10,000	\$10,000 - \$14,999	\$15,000 - \$19,999	\$20,000 - \$24,999	\$25,000 - \$29,999	\$30,000 - \$34,999	\$35,000 - \$39,999	\$40,000 - \$44,999	\$45,000 - \$49,999	\$50,000 & Over
Total	8,307	75	180	249	436	703	1,130	1,272	1,074	841	2,347
Under 20	1	0	0	0	1	0	0	0	0	0	0
20 – 24	220	1	6	15	35	53	54	26	20	8	2
25 – 29	736	8	12	47	49	87	153	150	105	64	61
30 – 34	805	3	5	17	39	60	118	150	143	109	161
35 – 39	763	2	5	11	39	46	93	135	131	88	213
40 – 44	888	6	8	22	31	65	115	133	122	98	288
45 – 49	994	5	12	20	41	70	147	142	117	110	330
50 – 54	1,246	7	15	17	50	105	159	201	163	104	425
55 – 59	1,274	6	34	32	60	90	143	171	155	129	454
60 – 64	965	8	35	30	48	92	107	121	90	112	322
65 – 69	309	17	29	20	25	26	37	38	23	17	77
70 – 74	75	6	13	8	15	9	4	5	3	2	10
75 & over	31	6	6	10	3	0	0	0	2	0	4

TABLE 10-B***Census of Members in Active Service on July 1, 2012
by Nearest Age and Salary******(Females – Main System, Judges, National Guard, and Law Enforcement)***

Nearest Age	Annualized Salary										
	Total	Less than \$10,000	\$10,000 - \$14,999	\$15,000 - \$19,999	\$20,000 - \$24,999	\$25,000 - \$29,999	\$30,000 - \$34,999	\$35,000 - \$39,999	\$40,000 - \$44,999	\$45,000 - \$49,999	\$50,000 & Over
Total	12,785	184	705	1,433	1,603	1,916	1,653	1,542	1,238	805	1,706
Under 20	4	1	0	1	1	1	0	0	0	0	0
20 – 24	286	21	50	49	65	46	25	21	7	2	0
25 – 29	907	22	67	101	134	151	132	130	103	28	39
30 – 34	1,068	15	48	110	117	160	146	154	116	91	111
35 – 39	1,195	20	89	123	108	165	138	152	140	81	179
40 – 44	1,409	22	86	181	149	187	182	181	133	85	203
45 – 49	1,693	23	93	208	204	248	211	201	151	107	247
50 – 54	2,295	18	96	236	311	342	301	254	215	144	378
55 – 59	2,117	14	64	224	280	324	267	255	214	151	324
60 – 64	1,352	12	65	132	173	222	194	156	130	93	175
65 – 69	342	4	26	45	46	52	49	31	23	20	46
70 – 74	81	8	11	15	11	12	8	6	5	2	3
75 & over	36	4	10	8	4	6	0	1	1	1	1

TABLE 10-C

*Census of Members in Active Service on July 1, 2012
by Nearest Age and Salary*

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

Nearest Age	Annualized Salary										
	Total	Less than \$10,000	\$10,000 - \$14,999	\$15,000 - \$19,999	\$20,000 - \$24,999	\$25,000 - \$29,999	\$30,000 - \$34,999	\$35,000 - \$39,999	\$40,000 - \$44,999	\$45,000 - \$49,999	\$50,000 & Over
Total	21,092	259	885	1,682	2,039	2,619	2,783	2,814	2,312	1,646	4,053
Under 20	5	1	0	1	2	1	0	0	0	0	0
20 – 24	506	22	56	64	100	99	79	47	27	10	2
25 – 29	1,643	30	79	148	183	238	285	280	208	92	100
30 – 34	1,873	18	53	127	156	220	264	304	259	200	272
35 – 39	1,958	22	94	134	147	211	231	287	271	169	392
40 – 44	2,297	28	94	203	180	252	297	314	255	183	491
45 – 49	2,687	28	105	228	245	318	358	343	268	217	577
50 – 54	3,541	25	111	253	361	447	460	455	378	248	803
55 – 59	3,391	20	98	256	340	414	410	426	369	280	778
60 – 64	2,317	20	100	162	221	314	301	277	220	205	497
65 – 69	651	21	55	65	71	78	86	69	46	37	123
70 – 74	156	14	24	23	26	21	12	11	8	4	13
75 & over	67	10	16	18	7	6	0	1	3	1	5

TABLE 11-A

*Pensions Awarded During the Year Ended June 30, 2012
by Type of Pension and Monthly Amount*

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Rule of 85	Disability
Total	289	102	56	120	11
Under \$200	17	13	4	0	0
200 - 399	23	11	12	0	0
400 - 599	25	9	13	0	3
600 - 799	27	15	9	1	2
800 - 999	16	9	5	0	2
1,000 - 1,199	13	5	4	1	3
1,200 - 1,399	20	4	3	12	1
1,400 - 1,599	15	6	3	6	0
1,600 - 1,799	16	5	1	10	0
1,800 - 1,999	14	3	0	11	0
2,000 - 2,199	17	6	1	10	0
2,200 - 2,399	13	1	0	12	0
2,400 - 2,599	8	3	0	5	0
2,600 - 2,799	7	0	0	7	0
2,800 - 2,999	8	1	0	7	0
3,000 - 3,199	6	1	0	5	0
3,200 - 3,399	5	1	0	4	0
3,400 - 3,599	4	1	0	3	0
3,600 - 3,799	4	1	0	3	0
3,800 - 3,999	2	0	0	2	0
4,000 - 4,199	2	0	0	2	0
4,200 - 4,399	4	1	0	3	0
4,400 - 4,599	3	0	1	2	0
4,600 - 4,799	1	0	0	1	0
4,800 - 4,999	6	2	0	4	0
5,000 & over	13	4	0	9	0

TABLE 11-B

*Pensions Awarded During the Year Ended June 30, 2012
by Type of Pension and Monthly Amount*

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Rule of 85	Disability
Total	395	141	118	124	12
Under \$200	43	19	24	0	0
200 - 399	64	29	32	0	3
400 - 599	41	16	20	0	5
600 - 799	49	21	20	5	3
800 - 999	29	18	6	5	0
1,000 - 1,199	20	5	6	9	0
1,200 - 1,399	23	9	2	12	0
1,400 - 1,599	22	4	4	14	0
1,600 - 1,799	13	4	1	8	0
1,800 - 1,999	17	6	2	8	1
2,000 - 2,199	14	2	1	11	0
2,200 - 2,399	12	3	0	9	0
2,400 - 2,599	10	2	0	8	0
2,600 - 2,799	4	2	0	2	0
2,800 - 2,999	7	1	0	6	0
3,000 - 3,199	4	0	0	4	0
3,200 - 3,399	1	0	0	1	0
3,400 - 3,599	2	0	0	2	0
3,600 - 3,799	4	0	0	4	0
3,800 - 3,999	3	0	0	3	0
4,000 - 4,199	1	0	0	1	0
4,200 - 4,399	4	0	0	4	0
4,400 - 4,599	1	0	0	1	0
4,600 - 4,799	2	0	0	2	0
4,800 - 4,999	0	0	0	0	0
5,000 & over	5	0	0	5	0

TABLE 11-C

*Pensions Awarded During the Year Ended June 30, 2012
by Type of Pension and Monthly Amount*

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Rule of 85	Disability
Total	684	243	174	244	23
Under \$200	60	32	28	0	0
200 - 399	87	40	44	0	3
400 - 599	66	25	33	0	8
600 - 799	76	36	29	6	5
800 - 999	45	27	11	5	2
1,000 - 1,199	33	10	10	10	3
1,200 - 1,399	43	13	5	24	1
1,400 - 1,599	37	10	7	20	0
1,600 - 1,799	29	9	2	18	0
1,800 - 1,999	31	9	2	19	1
2,000 - 2,199	31	8	2	21	0
2,200 - 2,399	25	4	0	21	0
2,400 - 2,599	18	5	0	13	0
2,600 - 2,799	11	2	0	9	0
2,800 - 2,999	15	2	0	13	0
3,000 - 3,199	10	1	0	9	0
3,200 - 3,399	6	1	0	5	0
3,400 - 3,599	6	1	0	5	0
3,600 - 3,799	8	1	0	7	0
3,800 - 3,999	5	0	0	5	0
4,000 - 4,199	3	0	0	3	0
4,200 - 4,399	8	1	0	7	0
4,400 - 4,599	4	0	1	3	0
4,600 - 4,799	3	0	0	3	0
4,800 - 4,999	6	2	0	4	0
5,000 & over	18	4	0	14	0

TABLE 12-A***Pensions Awarded During the Year Ended June 30, 2012
by Type of Pension and Nearest Age******(Males – Main System, Judges, National Guard, and Law Enforcement)***

Nearest Age	Type of Pension				
	Total	Normal	Early	Rule of 85	Disability
Total	289	102	56	120	11
Under 50	2	0	0	0	2
50 - 54	12	0	1	9	2
55 - 59	42	2	7	30	3
60 - 64	115	4	38	69	4
65 - 69	86	64	10	12	0
70 - 74	24	24	0	0	0
75 & over	8	8	0	0	0

TABLE 12-B***Pensions Awarded During the Year Ended June 30, 2012
by Type of Pension and Nearest Age******(Females – Main System, Judges, National Guard, and Law Enforcement)***

Nearest Age	Type of Pension				
	Total	Normal	Early	Rule of 85	Disability
Total	395	141	118	124	12
Under 50	4	0	0	0	4
50 - 54	8	0	0	7	1
55 - 59	60	2	20	34	4
60 - 64	149	4	77	65	3
65 - 69	141	102	21	18	0
70 - 74	24	24	0	0	0
75 & over	9	9	0	0	0

TABLE 12-C***Pensions Awarded During the Year Ended June 30, 2012
by Type of Pension and Nearest Age******(All Members – Main System, Judges, National Guard, and Law Enforcement)***

Nearest Age	Type of Pension				
	Total	Normal	Early	Rule of 85	Disability
Total	684	243	174	244	23
Under 50	6	0	0	0	6
50 - 54	20	0	1	16	3
55 - 59	102	4	27	64	7
60 - 64	264	8	115	134	7
65 - 69	227	166	31	30	0
70 - 74	48	48	0	0	0
75 & over	17	17	0	0	0

TABLE 13-A

***Current Plan Pensioners in Force as of July 1, 2012
by Type of Pension and Monthly Amount***

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Service*	Disability
Total	3,196	1,012	711	1,314	159
Under \$200	295	178	105	6	6
200 - 399	428	174	199	5	50
400 - 599	362	124	170	10	58
600 - 799	252	105	105	18	24
800 - 999	223	89	53	70	11
1,000 - 1,199	242	83	31	123	5
1,200 - 1,399	226	48	14	162	2
1,400 - 1,599	184	45	12	126	1
1,600 - 1,799	149	31	3	115	0
1,800 - 1,999	141	24	4	112	1
2,000 - 2,199	123	18	3	101	1
2,200 - 2,399	108	10	5	93	0
2,400 - 2,599	99	14	0	85	0
2,600 - 2,799	74	10	0	64	0
2,800 - 2,999	49	8	1	40	0
3,000 - 3,199	41	7	2	32	0
3,200 - 3,399	46	7	0	39	0
3,400 - 3,599	29	4	2	23	0
3,600 - 3,799	13	3	0	10	0
3,800 - 3,999	15	3	0	12	0
4,000 - 4,199	17	4	1	12	0
4,200 - 4,399	16	2	0	14	0
4,400 - 4,599	14	3	1	10	0
4,600 - 4,799	7	3	0	4	0
4,800 - 4,999	10	5	0	5	0
5,000 & over	33	10	0	23	0

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

TABLE 13-B

*Current Plan Pensioners in Force as of July 1, 2012
by Type of Pension and Monthly Amount*

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Service*	Disability
Total	4,342	1,387	1,510	1,264	181
Under \$200	684	271	395	9	9
200 - 399	947	339	532	9	67
400 - 599	672	254	328	23	67
600 - 799	411	154	134	95	28
800 - 999	368	115	55	189	9
1,000 - 1,199	301	68	37	196	0
1,200 - 1,399	236	59	8	169	0
1,400 - 1,599	175	35	6	134	0
1,600 - 1,799	133	20	5	108	0
1,800 - 1,999	100	20	5	74	1
2,000 - 2,199	80	17	4	59	0
2,200 - 2,399	68	12	0	56	0
2,400 - 2,599	38	3	1	34	0
2,600 - 2,799	25	4	0	21	0
2,800 - 2,999	21	3	0	18	0
3,000 - 3,199	18	3	0	15	0
3,200 - 3,399	13	2	0	11	0
3,400 - 3,599	8	1	0	7	0
3,600 - 3,799	11	2	0	9	0
3,800 - 3,999	8	2	0	6	0
4,000 - 4,199	4	1	0	3	0
4,200 - 4,399	6	1	0	5	0
4,400 - 4,599	1	0	0	1	0
4,600 - 4,799	3	0	0	3	0
4,800 - 4,999	1	1	0	0	0
5,000 & over	10	0	0	10	0

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

TABLE 13-C

*Current Plan Pensioners in Force as of July 1, 2012
by Type of Pension and Monthly Amount*

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Service*	Disability
Total	7,538	2,399	2,221	2,578	340
Under \$200	979	449	500	15	15
200 - 399	1,375	513	731	14	117
400 - 599	1,034	378	498	33	125
600 - 799	663	259	239	113	52
800 - 999	591	204	108	259	20
1,000 - 1,199	543	151	68	319	5
1,200 - 1,399	462	107	22	331	2
1,400 - 1,599	359	80	18	260	1
1,600 - 1,799	282	51	8	223	0
1,800 - 1,999	241	44	9	186	2
2,000 - 2,199	203	35	7	160	1
2,200 - 2,399	176	22	5	149	0
2,400 - 2,599	137	17	1	119	0
2,600 - 2,799	99	14	0	85	0
2,800 - 2,999	70	11	1	58	0
3,000 - 3,199	59	10	2	47	0
3,200 - 3,399	59	9	0	50	0
3,400 - 3,599	37	5	2	30	0
3,600 - 3,799	24	5	0	19	0
3,800 - 3,999	23	5	0	18	0
4,000 - 4,199	21	5	1	15	0
4,200 - 4,399	22	3	0	19	0
4,400 - 4,599	15	3	1	11	0
4,600 - 4,799	10	3	0	7	0
4,800 - 4,999	11	6	0	5	0
5,000 & over	43	10	0	33	0

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

TABLE 14-A***Current Plan Pensioners in Force as of July 1, 2012
by Type of Pension and Nearest Age******(Males – Main System, Judges, National Guard, and Law Enforcement)***

Nearest Age	Total	Type of Pension			
		Normal	Early	Service*	Disability
Total	3,196	1,012	711	1,314	159
Under 50	7	0	0	0	7
50 - 54	30	0	1	14	15
55 - 59	155	7	19	104	25
60 - 64	478	16	106	314	42
65 - 69	745	184	201	333	27
70 - 74	659	269	140	236	14
75 - 79	504	200	99	187	18
80 - 84	336	163	76	90	7
85 - 89	191	109	47	31	4
90 & over	91	64	22	5	0

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

TABLE 14-B***Current Plan Pensioners in Force as of July 1, 2012
by Type of Pension and Nearest Age******(Females – Main System, Judges, National Guard, and Law Enforcement)***

Nearest Age	Total	Type of Pension			
		Normal	Early	Service*	Disability
Total	4,342	1,387	1,510	1,264	181
Under 50	12	0	0	0	12
50 - 54	31	0	0	12	19
55 - 59	186	2	43	117	24
60 - 64	557	6	216	301	34
65 - 69	1,047	280	339	392	36
70 - 74	885	350	273	232	30
75 - 79	702	267	285	136	14
80 - 84	448	204	188	49	7
85 - 89	297	155	115	22	5
90 & over	177	123	51	3	0

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

TABLE 14-C

*Current Plan Pensioners in Force as of July 1, 2012
by Type of Pension and Nearest Age*

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

Nearest Age	Type of Pension				
	Total	Normal	Early	Service*	Disability
Total	7,538	2,399	2,221	2,578	340
Under 50	19	0	0	0	19
50 - 54	61	0	1	26	34
55 - 59	341	9	62	221	49
60 - 64	1,035	22	322	615	76
65 - 69	1,792	464	540	725	63
70 - 74	1,544	619	413	468	44
75 - 79	1,206	467	384	323	32
80 - 84	784	367	264	139	14
85 - 89	488	264	162	53	9
90 & over	268	187	73	8	0

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

TABLE 15***Special Prior Service Pensions in Force on July 1, 2012
by Monthly Amount***

Monthly Amount	Male	Female	Total
Total	3	10	13
Under \$20	1	2	3
20 - 39	1	3	4
40 - 59	0	3	3
60 - 79	1	1	2
80 - 99	0	1	1

TABLE 16***Special Prior Service Pensions in Force on July 1, 2012
by Nearest Age***

Nearest Age	Male	Female	Total
Total	3	10	13
90 - 94	0	1	1
95 - 99	1	6	7
100 & Over	2	3	5