

# NDPERS BOARD MEETING

## Agenda

**Bismarck Location:**  
ND Association of Counties  
1661 Capitol Way  
**Fargo Location:**  
BCBS, 4510 13<sup>th</sup> Ave SW

**October 21, 2010**

**Time: 8:30 AM**

### **I. MINUTES**

- A. September 8, 2010
- B. September 16, 2010
- C. September 28, 2010

### **II. PERSLink Update**

### **III. RETIREMENT**

- A. RIO Update – LeRoy Gilbertson (Information)
- B. Actuarial Valuations - Segal
- C. Technical Reviews of Legislation – Segal
- D. Job Service Retirement Plan COLA – Kathy (Board Action)
- E. Technical Reviews of Legislation – Sparb (Information)

### **IV. GROUP INSURANCE**

- A. Technical Reviews of Legislation – Deloitte
- B. Judges Health Savings Plan – Deb (Information)
- C. Superior Vision Plan – Implementation Update – Kathy (Information)

### **V. MISCELLANEOUS**

- A. Health Care Reform Meeting – Sparb (Board Action)
- B. Board Meeting Dates for 2011 – Sparb (Information)
- C. SIB Agenda

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Any individual requiring an auxiliary aid or service must contact the NDPERS ADA Coordinator at 328-3900, at least 5 business days before the scheduled meeting.



**North Dakota**  
**Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

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FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 14, 2010  
**SUBJECT:** PERSLink Update

Sharon Schiermeister will be at the Board meeting to give an update on our PERSLink business system.



**North Dakota  
Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

---

FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 14, 2010  
**SUBJECT:** RIO Update

LeRoy Gilbertson will be at the next meeting to provide an update on the SIB.



**North Dakota  
Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

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# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 14, 2010  
**SUBJECT:** Actuarial Valuations

Attached are the draft actuarial valuations for the main, Highway Patrolmen's, Job Service, and Retiree Health Insurance Credit plans as prepared by Segal. Segal will be at the Board meeting to review the valuations and answer questions.

**NORTH DAKOTA PUBLIC EMPLOYEES  
RETIREMENT SYSTEM**

**Actuarial Valuation Report as of July 1, 2010**

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THE SEGAL COMPANY  
5670 Greenwood Plaza Boulevard Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 13, 2010

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

Members of the Board:

It is a pleasure to submit this report that presents the results of our actuarial valuation of the North Dakota Public Employees Retirement System as of July 1, 2010.

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

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

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

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

Sincerely,

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

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

---

Kurt Schneider, ASA, MAAA, EA  
Associate Actuary

CZI/bqb

cc: Sparb Collins

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## I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2010. The employer contribution requirements presented in Section VI of the report are based on:

1. The present provisions of the North Dakota Public Employees Retirement System;
2. The characteristics of covered active members, inactive non-retired members, pensioners and beneficiaries as of July 1, 2010;
3. The assets of the System as of June 30, 2010; and
4. Actuarial assumptions regarding investment earnings, salary increases, and rates of retirement, disability, death, etc.

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

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

## II. HIGHLIGHTS

- For the PERS Fund overall, the present rate of contributions is not sufficient to meet the actuarially determined requirement for 2010-2011, based upon the actuarial assumptions and financing objectives approved by the Board. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.
- The PERS Board should continue to review these results and projected future performance to determine appropriate measures to mitigate the difference between the actuarial and statutory (or approved) contribution rates.
- The employer actuarial contribution requirements for 2010-2011 are as follows:

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

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

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

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

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

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

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

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

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

- Table 6 details actuarial gains and losses in the Main System for many of the measured demographic assumptions. The gain/(loss) by source is measured each year, and a detailed analysis of the System's demographic assumptions is reviewed every fourth or fifth year by the completion of an experience study. Based on the Actuarial Experience Study completed in early 2010, the Board approved several changes to the actuarial assumptions. This resulted in an increase in the actuarially determined contribution rate of 1.54% of payroll. See Exhibits II and III of Appendix A for a complete summary of assumptions and changes in assumptions.
- Effective July 1, 2009, 37 employees of the Bureau of Criminal Investigation transferred from the Main System to the Law Enforcement With Prior Main Service Plan. A corresponding asset transfer of \$3,511,938 took place. This amount is equal to their Actuarial Accrued Liability in the Main System, as of July 1, 2009.
- Members with service and member contributions in two Systems (Main and Judges or Main and Highway Patrol) are valued in both Systems. A liability is calculated in each System for service in that System. Prior to this valuation, transfers between Main, Judges and Highway Patrol were the only transferred members valued this way. Beginning with the July 1, 2010 valuation, PERS has provided us with service and member contributions in two Systems for members that transferred between any two Systems.

### III. MEMBER CHARACTERISTICS

#### *Active Members*

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

Category	Year Beginning July 1		Change From Prior Year
	2010	2009	
<b>Main:</b>			
Number	20,372	19,686	3.5%
Average age	47.2	47.0	N/A
Average service credit	10.5	10.4	1.0%
Total compensation	\$751,067,149	\$684,333,238	9.8%
Average compensation	\$36,868	\$34,762	6.1%
Contribution account balance	\$590,190,993	\$499,497,595	18.2%
<b>Judges:</b>			
Number	47	47	0.0%
Average age	58.1	57.0	N/A
Average service credit	17.0	16.8	1.2%
Total compensation	\$5,685,227	\$5,439,847	4.5%
Average compensation	\$120,692	\$115,741	4.3%
Contribution account balance	\$4,312,283	\$4,005,004	7.7%
<b>National Guard:</b>			
Number	30	36	-16.7%
Average age	35.1	34.4	N/A
Average service credit	4.8	3.6	33.3%
Total compensation	\$1,259,707	\$1,336,097	-5.7%
Average compensation	\$41,990	\$37,114	13.1%
Contribution account balance	\$345,955	\$291,291	18.8%
<b>Law Enforcement with prior Main service:</b>			
Number	187	144	29.9%
Average age	40.7	41.2	N/A
Average service credit	8.8	8.7	1.1%
Total compensation	\$10,559,725	\$5,677,624	86.0%
Average compensation	\$56,469	\$39,428	43.2%
Contribution account balance	\$5,566,535	\$3,746,848	48.6%
<b>Law Enforcement without prior Main service:</b>			
Number	32	30	6.7%
Average age	36.4	35.2	N/A
Average service credit	2.9	2.5	16.0%
Total compensation	\$1,138,300	\$949,790	19.8%
Average compensation	\$35,572	\$31,660	12.4%
Contribution account balance	\$118,521	\$105,929	11.9%
<b>All active members:</b>			
Number	20,668	19,943	3.6%
Average age	47.2	47.0	N/A
Average service credit	10.4	10.4	0.0%
Total compensation	\$769,710,108	\$697,736,596	10.3%
Average compensation	\$37,242	\$34,987	6.4%
Contribution account balance	\$600,534,287	\$507,646,667	18.3%

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

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

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

### ***Transfers***

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

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

***Inactive Members***

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

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

DRAFT

#### IV. BENEFIT EXPERIENCE

##### *New Awards*

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

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

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

##### *Pensioners*

Since benefits became payable under the current retirement program, a total of 9,433 retirement pensions have been awarded, of which 6,681 remained on the June 2010 rolls (including 22 retired Judges and 32 retired members of the National Guard/Law Enforcement). In addition, 74 pensions were in suspended status as of June 30, 2010. Distributions of the pensioners are presented in Tables 12-A, 12-B, 12-C, 13-A, 13-B and 13-C in Appendix B by sex, type of pension, monthly benefit amount and current age.

For the pensions in force on July 1, 2010, the average monthly benefit was \$917, an increase of \$26 from \$891 a year earlier. The average age of these pensioners on the valuation date was 72.1 years.

##### *Beneficiaries*

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

##### *Prior Service Pensioners*

As of July 1, 2010, there were 18 pensioners receiving monthly benefits of \$634 under the Special Prior Service Pension provisions of the System. The current average age of Prior Service pensioners was 97.1 years, and the average monthly benefit was \$35. Because of the relatively high average age and low benefits, the liability for the Special Prior Service Pensioners represented less than 0.01% of the total actuarial accrued liability for the System. Tables 14-A, 14-B, 14-C, 15-A, 15-B, and 15-C in Appendix B provide a breakdown of these pensioners by sex, type of pension, monthly benefit amount, and current age.

## V. ASSETS

### *Market Value of Assets*

As shown in the draft financial statements as of June 30, 2010, the combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen's Retirement System (HPRS) was \$1,519,023,138, an increase of \$158 million compared to \$1,360,977,213 a year earlier. This year's combined market value represents an increase of 11.61% over the market value one year earlier.

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

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

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

### *Actuarial Value of Assets*

The actuarial value of assets is determined as follows:

Market appreciation and depreciation are spread over five years beginning with the year of occurrence. Interest and dividends are recognized immediately. This procedure results in recognition of all changes in market value over five years. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

The above procedure is applied to the combined assets of PERS and HPRS Retirement Income Funds to determine the combined actuarial value of the Systems. The combined actuarial value was \$1,671,048,709 as of June 30, 2010. The determination of the combined actuarial asset value is shown in Table 1. This table shows that there is approximately \$152 million of depreciation that will be recognized in future years.

Table 2 summarizes the combined investment results over the previous ten-year period. Over this period, the earnings of \$756,520,300 on an actuarial value basis represented an average annual return of 5.75%. For the 2009-2010 year, the actuarial rate of return on the combined assets was 1.48%.

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

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

Chart 1 on page 15 shows the historical asset values for the PERS Fund on both an actuarial and market value basis. This graph illustrates that the market value of assets is currently less than the actuarial value.

Income and disbursements for 2010 and 2009 on an actuarial value basis are summarized in Table 4 for the PERS Fund. The progress of the PERS Fund for the last ten years is provided in Table 5. It shows that assets have increased consistently from year to year, although the amount of the increase has varied with fluctuations in investment income. Benefit payments have also increased consistently over the period.

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

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

### ***Investment Return***

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

<b><u>Year Ending June 30</u></b>	<b><u>Market Value</u></b>	<b><u>Actuarial Value</u></b>
2001	(4.47)%	9.36%
2002	(6.94)	3.91
2003	5.19	2.18
2004	16.65	3.16
2005	14.17	4.36
2006	12.04	7.79
2007	19.63	15.84
2008	(5.21)	8.51
2009	(24.05)	1.72
2010	13.25	1.48

The above values demonstrate the fact that the volatility of market value returns is reduced by using an actuarial value of assets. Chart 3 on page 19 illustrates the smoothing effect that results from using an actuarial value of assets. By using an actuarial value that reduces the year-to-year fluctuations in investment return, year-to-year fluctuations in contribution requirements are reduced.

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

**TABLE 1*****Determination of Actuarial Value of Assets  
(for PERS and HPRS) as of June 30, 2010 and 2009***

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

**TABLE 2*****Summary of Combined Investment Results for PERS and HPRS on Actuarial Value of Assets***

Year Ended June 30	Net Interest and Dividend Income*		Other Income**		Total Net Investment Income	
	Amount	Yield	Amount	Yield	Amount	Yield
2001	\$41,086,800	3.89%	\$57,734,900	5.47%	\$98,821,700	9.36%
2002	35,077,400	3.06	9,694,500	0.85	44,771,900	3.91
2003	33,595,900	2.84	(7,793,200)	(0.66)	25,802,700	2.18
2004	30,464,800	2.54	7,398,200	0.62	37,863,000	3.16
2005	29,115,600	2.38	24,276,800	1.98	53,392,400	4.36
2006	24,410,600	1.93	73,910,900	5.86	98,321,500	7.79
2007	34,727,000	2.58	178,771,700	13.26	213,498,700	15.84
2008	32,819,700	2.13	98,332,000	6.38	131,151,700	8.51
2009	29,260,400	1.77	(964,400)	(0.05)	28,296,000	1.72
2010	25,938,200	1.57	(1,337,500)	(0.09)	24,600,700	1.48
Total for Last Ten Years	\$316,496,400		\$440,023,900		\$756,520,300	
Average Yield for last Ten Years					5.75%	

\* Net of investment expenses.

\*\* Includes write-up (down).

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

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

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

Chart 1  
Value of Assets for PERS



**TABLE 4**

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

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

**TABLE 5*****Progress of the PERS Fund through June 30, 2010  
(Actuarial Value Basis)***

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

\* Includes repurchases of service credit.

Chart 2  
Income and Disbursements for PERS

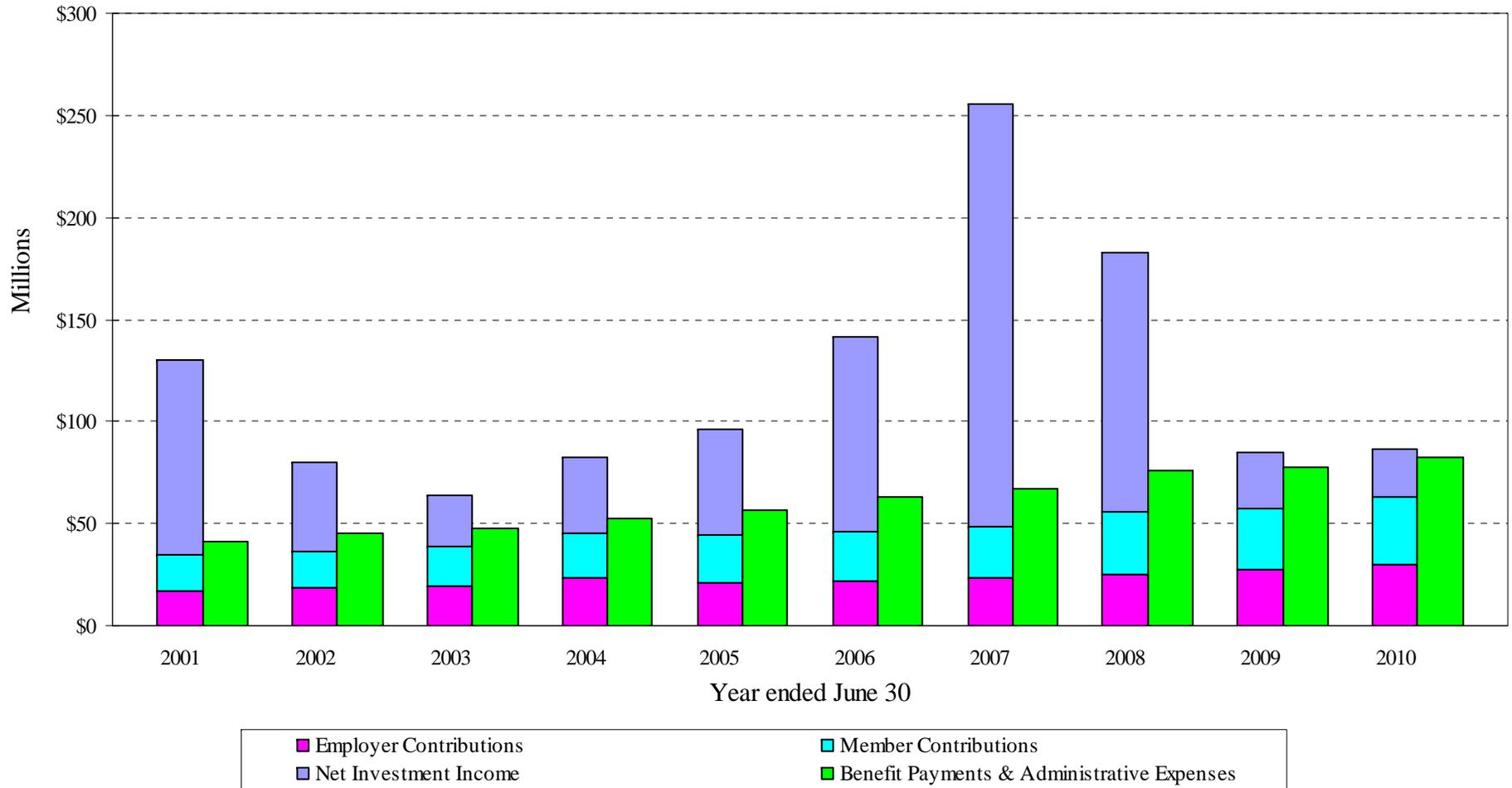
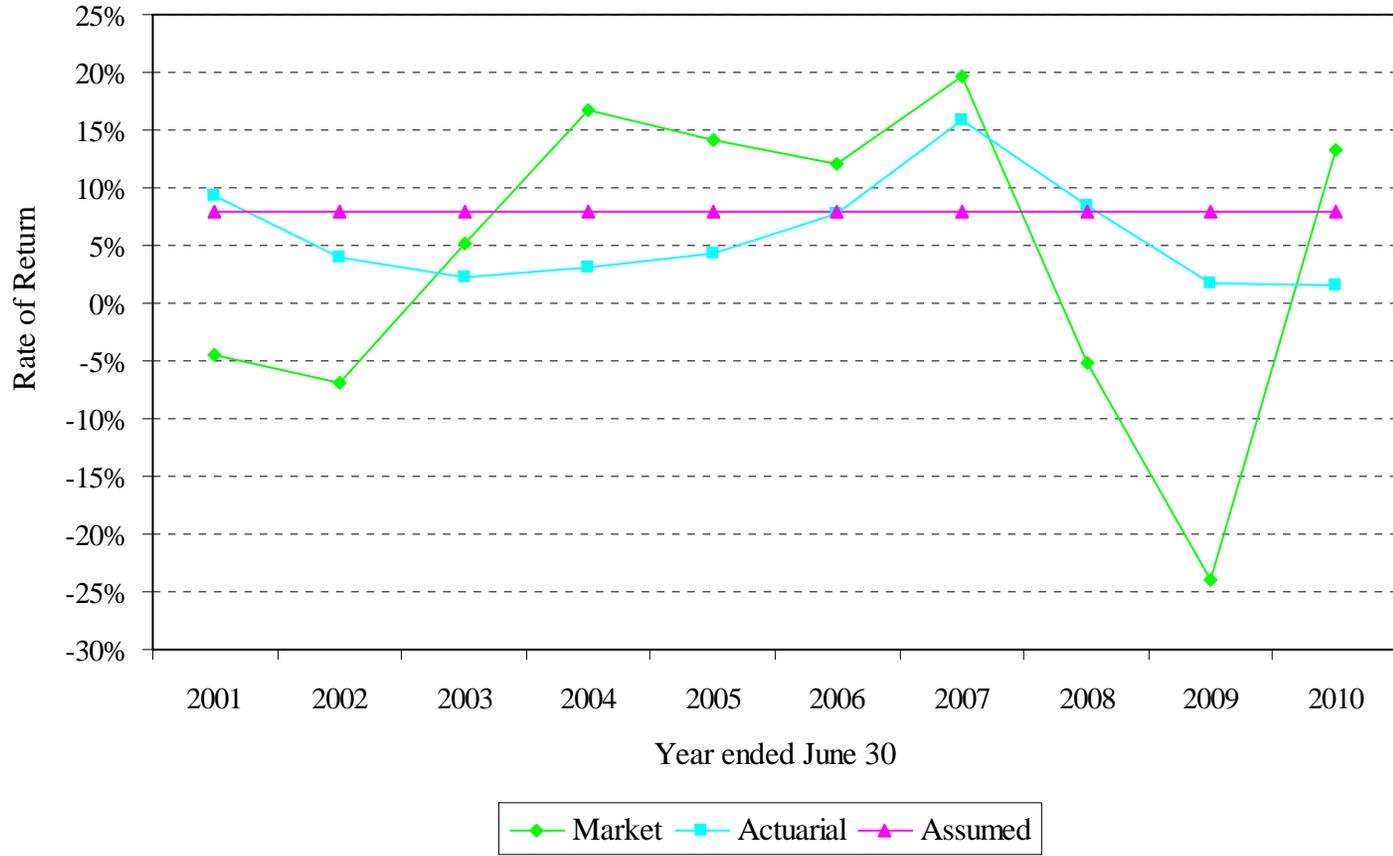


Chart 3  
Investment Returns  
(PERS and HPRS Combined)



## VI. RESULTS OF ACTUARIAL VALUATION

The contribution requirement consists of the normal cost, administrative expense allowance, plus the cost of amortizing the unfunded actuarial accrued liability over a scheduled period of years. The Board has adopted an open amortization schedule of 20 years with increasing payments. The calculated employer contribution requirements on this basis for fiscal year 2010-2011 are shown below as a dollar amount and as a percentage of the covered payroll of contributing employees.

### *Main System*

The components of the actuarial contribution requirements are shown below:

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

Covered payroll is \$751,067,149.

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

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

## *Judges*

The components of the actuarial contribution requirement are shown below:

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

Covered payroll is \$5,685,227.

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

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

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

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

*National Guard*

The components of the actuarial contribution requirement are shown below:

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

Covered payroll is \$1,259,707.

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

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

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

***Law Enforcement with prior Main service***

The components of the actuarial contribution requirement are shown below:

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

Covered payroll is \$10,559,725.

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

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

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

***Law Enforcement without prior Main service***

The components of the actuarial contribution requirement are shown below:

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

Covered payroll is \$1,138,300.

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

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

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

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

The components of the actuarial contribution requirement are shown below.

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

Covered payroll is \$769,710,108.

**TABLE 6**  
**Main System**  
**Explanation of Change in Employer Cost Rate**

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

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

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

## VII. FUNDING STATUS

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

### *Funding Basis - Actuarial Accrued Liability*

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

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

### *Disclosure Basis*

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

### *Historical Results*

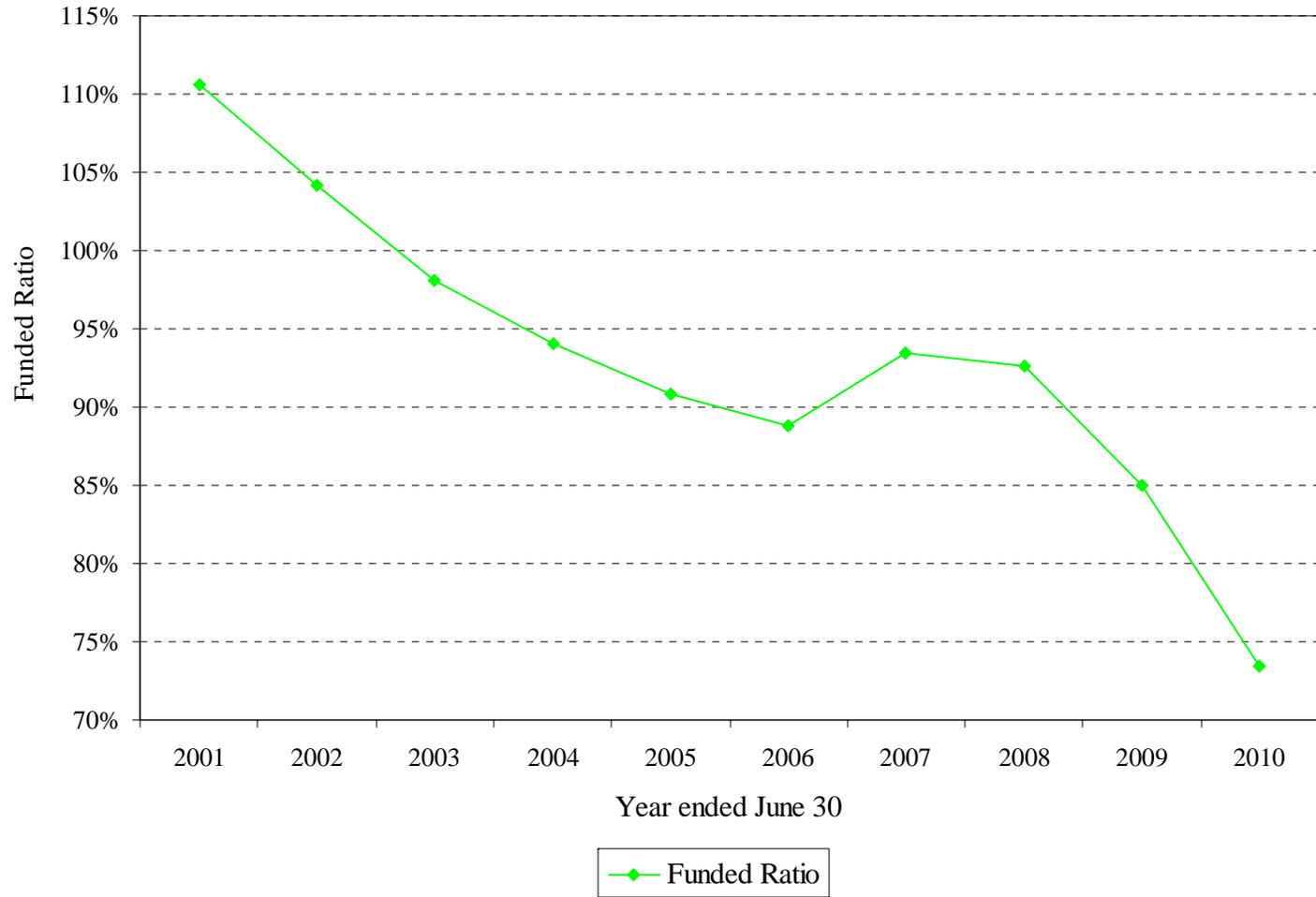
The funded ratios (under the GASB Statement No. 25 standard) for the last ten years are developed in Table 7. These ratios are graphed in Chart 4 on page 30. They show that the funded ratio has deteriorated since July 1, 2001. This is due to investment losses and the fact that the statutory contribution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

Funded ratios change over time due to several factors. These factors include the level of contributions, actual experience (including investment returns), plan amendments and changes in assumptions. In particular, the actuarial assumptions were changed in 2006 and 2010, changing the funded ratio from what it would have been otherwise.

**TABLE 7****Funded Ratio for PERS**

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
2001	\$1,008,722,500	\$1,115,334,400	110.6%
2002	1,103,460,900	1,150,000,800	104.2
2003	1,188,830,500	1,166,452,100	98.1
2004	1,272,857,600	1,196,533,100	94.0
2005	1,361,182,100	1,236,114,100	90.8
2006	1,480,456,700	1,314,542,900	88.8
2007	1,609,168,600	1,503,137,900	93.4
2008	1,737,627,000	1,609,810,300	92.6
2009	1,901,200,800	1,617,147,800	85.1
2010	2,208,386,100	1,621,723,100	73.4

Chart 4  
Funded Ratio (PERS)



## VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

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

### *Investment Return*

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

### *Salary Increases*

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

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

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

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

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

### ***Payroll Growth***

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

### ***Mortality Rates***

The reserve required to pay a member's retirement benefits depends on the period over which payments will be received. The valuation uses RP-2000 Combined Healthy Mortality Table set back three years for healthy members and the RP-2000 Disabled Retiree Mortality Table set back one year for males (not set back for females) for disabled members. The table below shows sample mortality rates and life expectancies underlying the healthy mortality tables.

<u>Age</u>	<u>Retired Members</u>			
	<u>Males</u>		<u>Females</u>	
	<u>Deaths per 1,000 Lives</u>	<u>Expected Number of Years of Life Remaining</u>	<u>Deaths per 1,000 Lives</u>	<u>Expected Number of Years of Life Remaining</u>
55	2.7	28.4	2.0	31.2
60	4.7	23.9	3.5	26.6
65	8.8	19.5	6.7	22.1
70	16.1	15.6	12.2	18.0
75	27.3	12.0	20.7	14.3
80	46.9	8.9	34.1	11.0
85	80.5	6.3	56.3	8.1

### ***Disability Incidence Rates Before Retirement***

A percentage of members are assumed to become disabled while in active service. The incidence rates used are based on a study of disability incidence under the Social Security program. To reflect actual experience under the retirement system, 33% of the Social Security disability incidence rates are used for males and 20% are used for females.

### ***Withdrawal Rates Before Retirement***

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

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

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

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

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

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

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

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

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

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

For Judges, withdrawal rates at each age are:

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

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

**Retirement**

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

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

*\*Age 65 or Rule of 85*

The retirement rates for Judges begin at age 60. Ten percent of Judges are assumed to retire at ages 60 and 61, 20% are assumed to retire at each age from 62 to 64, 50% are assumed to retire at each age from 65 to 69, and 100% of the remaining Judges are assumed to retire at age 70. Retirement for members of the National Guard and Law Enforcement is assumed to begin at age 55. Twenty percent are assumed to retire at each age from 55 to 63, 50% are assumed to retire at age 64, and 100% are assumed to retire at age 65.

Retirement for inactive vested members of the Main System and Judges is assumed to occur at the earlier of age 64 and the unreduced retirement date for each individual. Retirement for inactive vested members of the National Guard is assumed to occur at age 55. Retirement for inactive vested members of the Law Enforcement is assumed to occur at the earlier of age 55 and the unreduced retirement date for each individual.

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

### ***Annual Administrative Expenses***

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

### ***Marital Status for Non-Retired Members***

For the Main System, National Guard and Law Enforcement, 80% of male members and 65% of female members are assumed to have spouses at death or retirement. One hundred percent of Judges are assumed to have spouses at retirement or death. Males are assumed to be three years older than their female spouses.

### ***Valuation of Assets***

Investments are valued at an adjusted market value. Interest and dividends are recognized immediately. The net market appreciation (depreciation) is spread over five years in equal dollar amounts, beginning with the year of occurrence. The actuarial value of assets is the market value less deferred appreciation (depreciation). A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

### ***Actuarial Cost Method***

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

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

The normal cost payments are sufficient to finance the benefit program only if there are no changes in plan design and all actuarial assumptions are realized. To the extent that actual experience is less favorable than assumed, additional liabilities not funded through normal cost payments arise. Also, benefit liberalizations that improve earned benefits or benefit eligibility produce additional liabilities. The Board has adopted a policy of calculating an amortization payment for the Unfunded Actuarial Accrued Liability (UAAL) by using an open period of 20 years. The annual payments are determined as a level percent of payroll, with payroll expected to increase 4.5% per year for the Main System, National Guard and Law Enforcement, and 4.0% per year for Judges. This results in a payment towards the UAAL that is less than interest on the UAAL. Under this method, the UAAL would grow from year to year even if the actuarial required contribution was made and all actuarial assumptions were met.

## **APPENDIX A**

October 13, 2010

### **NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM**

#### **ACTUARIAL VALUATION CERTIFICATE**

This is to certify that we have prepared an Actuarial Valuation of the System as of July 1, 2010 in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:

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

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

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

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

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

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

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

Kurt Schneider, ASA, MAAA, EA  
Associate Actuary

**EXHIBIT I-A**  
**ACTUARIAL VALUATION RESULTS**  
**MAIN SYSTEM**

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

\* Adjusted for interest to recognize payments through the year.

**EXHIBIT I-B**  
**ACTUARIAL VALUATION RESULTS**  
**JUDGES**

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

\* Adjusted for interest to recognize payments through the year.

**EXHIBIT I-C**  
**ACTUARIAL VALUATION RESULTS**  
**NATIONAL GUARD**

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

\* Adjusted for interest to recognize payments through the year.

**EXHIBIT I-D**

**ACTUARIAL VALUATION RESULTS**

**LAW ENFORCEMENT WITH PRIOR MAIN SERVICE**

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

\* Adjusted for interest to recognize payments through the year.

**EXHIBIT I-E**

**ACTUARIAL VALUATION RESULTS**

**LAW ENFORCEMENT WITHOUT PRIOR MAIN SERVICE**

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

\* Adjusted for interest to recognize payments through the year.

**EXHIBIT I-F**

**ACTUARIAL VALUATION RESULTS**

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

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

\* Adjusted for interest to recognize payments through the year.

## EXHIBIT II

### ACTUARIAL ASSUMPTIONS AND COST METHODS

**1. Mortality Tables:**

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

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

**2. Disability Incidence Rates:**

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

Age 65 and later:                    0.25% per year.

Sample rates are as follows:

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

**3. Annual Withdrawal Rates:**

*Main System:*

First five years of service:

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

**EXHIBIT II (continued)**

Ultimate withdrawal rates after five years service:

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

*National Guard and Law Enforcement:*

First five years of service:

<u>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 service:

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

**EXHIBIT II (continued)**

*Judges:*

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

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

*Main System:*

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

*Judges:*

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

*National Guard and Law Enforcement:*

Age 50 and 3 years of service.

**4. Refund of Employee Contributions:**

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

**EXHIBIT II (continued)**

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

*Main System:*

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

*Judges:*

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

**EXHIBIT II (continued)**

*National Guard and Law Enforcement:*

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

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

*Main System and Judges:*

The earlier of:

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

*National Guard:*

Age 55.

*Law Enforcement:*

The earlier of:

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

**7. Interest Rate:**

8.00% per annum, net of investment expenses.

**8. Annual Administrative Expenses:**

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

**EXHIBIT II (continued)**

**9. Salary Scale:**

*Main System, National Guard, and Law Enforcement:*

Less than five years of service:

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

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

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

*Judges:*

5.00% per annum for all years of service.

**10. Payroll Growth:**

*Main System, National Guard and Law Enforcement:*

4.50% per annum

*Judges:*

4.00% per annum

**11. Percent Married and Age of Spouse:**

*Main System, National Guard, and Law Enforcement:*

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

*Judges:*

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



## EXHIBIT III

### CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS

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

**1. Mortality Tables:**

Healthy: 1983 Group Annuity Mortality Table, set back one year for males (not set back for females).

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

**2. Disability Incidence Rates:**

Before age 65: Males 42% of OASDI disability incidence rates.  
Females 30% of OASDI disability incidence rates.

Age 65 and later: Males 0.25% per year.  
Females 0.35% per year.

Sample rates are as follows:

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

**3. Annual Withdrawal Rates:**

*Main System:*

First five years of service:

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

**EXHIBIT III (continued)**

Ultimate withdrawal rates after five years service:

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

*National Guard and Law Enforcement:*

First five years of service:

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

Ultimate withdrawal rates after five years service:

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

### EXHIBIT III (continued)

*Judges:*

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

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

*Main System:*

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

*Judges:*

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

*National Guard and Law Enforcement:*

Age 50 and 3 years of service.

**4. Refund of Employee Contributions:**

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

**EXHIBIT III (continued)**

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

*Main System:*

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

*Judges:*

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

*National Guard and Law Enforcement:*

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

**EXHIBIT III (continued)**

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

*Main System and Judges:*

The earlier of:

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

*National Guard:*

Age 55.

*Law Enforcement:*

The earlier of:

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

**7. Annual Administrative Expenses:**

*Main System:* \$ 710,000

*Judges:* \$ 5,000

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

**8. Salary Scale:**

*Main System, National Guard and Law Enforcement:*

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

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

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

*Judges:*

5.50% per annum for all years of service.

**EXHIBIT III (continued)**

**9. Marital Status for Non-Retired Members:**

At death, 75% of male members and 60% of female members are assumed to have spouses. The same assumption applies at retirement, except for Judges, for whom 100% are assumed to have spouses. For the Main system, males are assumed to be four years older than their female spouses. For all other systems, males are assumed to be five years older than their female spouses.

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

Participation

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

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

## EXHIBIT IV

### SUMMARY OF PLAN PROVISIONS

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

#### 1. **Normal Service Retirement:**

Eligibility:

*Main System and Judges:*

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

*National Guard:*

Attainment of age 55 and three consecutive years of service.

*Law Enforcement:*

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

Benefit:

*Main System, National Guard and Law Enforcement:*

2.00% of final average salary multiplied by service.

*Judges:*

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

#### 2. **Early Retirement:**

Eligibility:

*Main System:*

Attainment of age 55 with three years of service.

*Judges:*

Attainment of age 55 with five years of service.

## EXHIBIT IV (continued)

### *National Guard and Law Enforcement:*

Attainment of age 50 with three years of service.

#### Benefit:

##### *Main System:*

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

##### *Judges:*

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

##### *National Guard:*

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

##### *Law Enforcement:*

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

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

#### Eligibility:

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

#### Benefit:

##### *Main System, National Guard and Law Enforcement:*

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

##### *Judges:*

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

**EXHIBIT IV (continued)**

**4. Deferred Vested Retirement:**

Eligibility:

*Main System, National Guard and Law Enforcement:*

Three years of service.

*Judges:*

Five years of service.

Benefit:

*Main System and Judges:*

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

*National Guard:*

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

*Law Enforcement:*

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

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

Eligibility:

*Main System, National Guard and Law Enforcement:*

Three years of service.

*Judges:*

Five years of service.

## EXHIBIT IV (continued)

Benefit:

*Main System, National Guard and Law Enforcement:*

One of the following options:

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

*Judges:*

One of the following options:

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

Eligibility:

*Main System, Judges, National Guard and Law Enforcement:*

Not vested or no surviving spouse.

Benefit:

*Main System, Judges, National Guard and Law Enforcement:*

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

### **6. Refund of Member Contributions:**

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

**EXHIBIT IV (continued)**

**7. Accumulated Member Contributions:**

Member contributions accumulate with interest at the following rates:

<u>Time Period</u>	<u>Per Annum Interest Rate</u>
Through June 30, 1981	5.0%
July 1, 1981 to June 30, 1986	6.0%
After June 30, 1986	0.5% less than the actuarial interest rate assumption

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

Standard form of payment:

*Main System, National Guard and Law Enforcement:*

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

*Judges:*

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

Optional forms of payment:

- Life annuity (for Judges)
- 50% joint and survivor annuity with pop-up (for Main System, National Guard and Law Enforcement)
- 100% joint and survivor annuity with pop-up
- Twenty-year certain and life annuity
- Ten-year certain and life annuity
- Social Security level income annuity
- A partial lump sum payment in addition to one of the annuity options above.
- Effective March 1, 2011, an actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option, a deferred normal retirement option, or a Social Security level income annuity.

**EXHIBIT IV (continued)**

**9. Final Average Salary:**

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

**10. Contributions:**

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

	<u>Full-Time Employees</u>	<u>Employer</u>
Main System	4.00%	4.12%
Judges	5.00%	14.52%
National Guard	4.00%	6.50%
Law Enforcement with prior Main service	4.00%	8.31%
Law Enforcement without prior Main service	4.00%	6.43%

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

Effective January 1, 2000:

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

1. For months one through 12 of service credit, \$25 or 1% of the member's monthly salary, whichever is greater.
2. For months 13 through 24 of service credit, \$25 or 2% of the member's monthly salary, whichever is greater.
3. For months 25 through 36 of service credit, \$25 or 3% of the member's monthly salary, whichever is greater.
4. For service exceeding 36 months, \$25 or 4% of the member's monthly salary, whichever is greater.

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

**11. Rollovers:**

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

## **EXHIBIT V**

### **CHANGES IN PLAN PROVISIONS**

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

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## APPENDIX B: CENSUS TABLES

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

**TABLE 8-A**

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

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

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

**TABLE 8-B**

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

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

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

**TABLE 8-C**

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

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

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

**TABLE 9-A**

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

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

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

**TABLE 9-B**

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

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

Nearest Age	Total	Salary									
		Less than \$10,000	\$10,000- \$14,999	\$15,000- \$19,999	\$20,000- \$24,999	\$25,000- \$29,999	\$30,000- \$34,999	\$35,000- \$39,999	\$40,000- \$44,999	\$45,000- \$49,999	\$50,000 & Over
Total	12,598	221	991	1,584	1,815	1,958	1,725	1,461	1,017	657	1,169
Under 20	9	2	4	2	1	-	-	-	-	-	-
20-24	268	17	44	57	64	34	34	9	6	2	1
25-29	812	20	73	109	132	138	129	104	66	27	14
30-34	1,012	8	83	91	122	163	170	157	101	62	55
35-39	1,176	24	109	128	133	159	169	151	112	67	124
40-44	1,411	34	152	200	178	211	158	165	93	69	151
45-49	1,918	28	137	255	249	293	263	222	157	106	208
50-54	2,235	26	145	278	360	349	300	227	179	126	245
55-59	2,121	21	119	243	331	325	284	252	200	119	227
60-64	1,222	14	72	158	176	223	168	137	85	68	121
65-69	289	10	30	41	46	49	40	28	16	11	18
70-74	89	12	14	18	15	10	10	5	2	-	3
75 & Over	36	5	9	4	8	4	-	4	-	-	2

**TABLE 9-C**

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

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

Nearest Age	Total	Salary									
		Less than \$10,000	\$10,000- \$14,999	\$15,000- \$19,999	\$20,000- \$24,999	\$25,000- \$29,999	\$30,000- \$34,999	\$35,000- \$39,999	\$40,000- \$44,999	\$45,000- \$49,999	\$50,000 & Over
Total	20,668	328	1,209	1,817	2,382	2,887	3,057	2,657	1,982	1,331	3,018
Under 20	16	3	5	3	4	-	-	-	-	1	-
20-24	499	25	52	72	95	93	90	41	20	7	4
25-29	1,453	28	86	135	193	242	272	229	142	59	67
30-34	1,700	10	89	112	168	234	307	286	202	124	168
35-39	1,937	31	115	142	178	242	278	287	230	142	292
40-44	2,225	41	164	215	224	295	288	290	187	144	377
45-49	2,967	34	158	275	311	422	455	369	287	192	464
50-54	3,526	37	170	304	430	485	509	409	328	248	606
55-59	3,416	33	155	275	421	459	477	417	352	239	588
60-64	2,125	30	106	188	246	306	298	254	190	143	364
65-69	563	24	63	60	73	85	67	54	38	29	70
70-74	169	21	27	25	28	17	15	15	6	1	14
75 & Over	72	11	19	11	11	7	1	6	-	2	4

**TABLE 10-A**

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

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Disability	Rule of 85
Total	179	54	45	3	77
Under \$200	12	6	6	-	-
200-399	23	8	14	-	1
400-599	22	6	14	1	1
600-799	15	11	3	1	-
800-999	9	4	3	1	1
1,000-1,199	11	3	3	-	5
1,200-1,399	9	3	1	-	5
1,400-1,599	14	6	-	-	8
1,600-1,799	6	-	-	-	6
1,800-1,999	12	4	-	-	8
2,000-2,199	9	1	1	-	7
2,200-2,399	7	-	-	-	7
2,400-2,599	5	-	-	-	5
2,600-2,799	8	1	-	-	7
2,800-2,999	1	-	-	-	1
3,000-3,199	1	-	-	-	1
3,200-3,399	3	-	-	-	3
3,400-3,599	3	-	-	-	3
3,600-3,799	1	1	-	-	-
3,800-3,999	-	-	-	-	-
4,000-4,199	1	-	-	-	1
4,200-4,399	1	-	-	-	1
4,400-4,599	3	-	-	-	3
4,600-4,799	1	-	-	-	1
4,800-4,999	-	-	-	-	-
5,000 & Over	2	-	-	-	2

**TABLE 10-B**

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

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

Monthly Amount	Type of Pension				
	Total	Normal	Early	Disability	Rule of 85
Total	242	89	61	4	88
Under \$200	35	18	16	-	1
200-399	19	10	7	-	2
400-599	31	12	15	3	1
600-799	21	6	11	1	3
800-999	19	7	8	-	4
1,000-1,199	20	5	3	-	12
1,200-1,399	23	10	-	-	13
1,400-1,599	22	9	-	-	13
1,600-1,799	11	2	1	-	8
1,800-1,999	8	3	-	-	5
2,000-2,199	10	2	-	-	8
2,200-2,399	6	2	-	-	4
2,400-2,599	-	-	-	-	-
2,600-2,799	3	-	-	-	3
2,800-2,999	2	2	-	-	-
3,000-3,199	3	-	-	-	3
3,200-3,399	4	-	-	-	4
3,400-3,599	1	-	-	-	1
3,600-3,799	2	1	-	-	1
3,800-3,999	-	-	-	-	-
4,000-4,199	-	-	-	-	-
4,200-4,399	-	-	-	-	-
4,400-4,599	-	-	-	-	-
4,600-4,799	-	-	-	-	-
4,800-4,999	-	-	-	-	-
5,000 & Over	2	-	-	-	2

**TABLE 10-C**

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

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

Monthly Amount	Total	Type of Pension			
		Normal	Early	Disability	Rule of 85
Total	421	143	106	7	165
Under \$200	47	24	22	-	1
200-399	42	18	21	-	3
400-599	53	18	29	4	2
600-799	36	17	14	2	3
800-999	28	11	11	1	5
1,000-1,199	31	8	6	-	17
1,200-1,399	32	13	1	-	18
1,400-1,599	36	15	-	-	21
1,600-1,799	17	2	1	-	14
1,800-1,999	20	7	-	-	13
2,000-2,199	19	3	1	-	15
2,200-2,399	13	2	-	-	11
2,400-2,599	5	-	-	-	5
2,600-2,799	11	1	-	-	10
2,800-2,999	3	2	-	-	1
3,000-3,199	4	-	-	-	4
3,200-3,399	7	-	-	-	7
3,400-3,599	4	-	-	-	4
3,600-3,799	3	2	-	-	1
3,800-3,999	-	-	-	-	-
4,000-4,199	1	-	-	-	1
4,200-4,399	1	-	-	-	1
4,400-4,599	3	-	-	-	3
4,600-4,799	1	-	-	-	1
4,800-4,999	-	-	-	-	-
5,000 & Over	4	-	-	-	4

**TABLE 11-A**

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

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

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

**TABLE 11-B**

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

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

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

**TABLE 11-C**

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

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

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

**TABLE 12-A**

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

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

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

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

**TABLE 12-B**

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

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

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

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

**TABLE 12-C**

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

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

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

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

**TABLE 13-A**

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

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

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

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

**TABLE 13-B**

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

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

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

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

**TABLE 13-C**

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

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

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

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

**TABLE 14-A**

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

*(Males)*

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

**TABLE 14-B**

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

*(Females)*

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

**TABLE 14-C**

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

*(All Members)*

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

**TABLE 15-A**

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

*(Males)*

---

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

---

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**TABLE 15-B**

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

*(Females)*

---

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

---

DRAFT

**TABLE 15-C**

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

***(All Members)***

---

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

---

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**NORTH DAKOTA HIGHWAY PATROLMEN'S  
RETIREMENT SYSTEM**

*Actuarial Valuation Report as of July 1, 2010*

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THE SEGAL COMPANY  
5670 Greenwood Plaza Boulevard Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 13, 2010

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

Members of the Board:

It is a pleasure to submit this report that presents the results of our actuarial valuation of the North Dakota Highway Patrolmen's Retirement System as of July 1, 2010.

The census information on which our calculations are based and the financial information were provided by the Retirement Office staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Mark Hamwee, 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, EA  
Consulting Actuary

Mark Hamwee, FSA, MAAA, EA  
Vice President & Associate Actuary

Kurt Schneider, ASA, MAAA, EA  
Associate Actuary

CZI/kek

cc: Sparb Collins

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## I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2010. The employer contribution requirements presented in Section VI of the report are based on:

1. The present provisions of the North Dakota Highway Patrolmen's Retirement System;
2. The characteristics of covered active members, inactive non-retired members, pensioners and beneficiaries as of July 1, 2010;
3. The assets of the System as of June 30, 2010; and
4. Actuarial assumptions regarding investment earnings, salary increases, and rates of retirement, disability, death, etc.

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

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

## II. HIGHLIGHTS

- The present rate of contributions is not sufficient to meet the actuarially determined requirement for 2010-2011, based upon the actuarial assumptions and financing objectives approved by the Board. If unchanged, this difference will further increase the actuarial contribution requirement in future valuations.
- The employer actuarial contribution requirement for 2010-2011 is \$1,744,270, or 22.54% of payroll. The statutory rate of 16.70% of payroll is less than the actuarially determined rate by 5.84% of payroll. Last year, the actuarially determined rate of 18.73% was greater than the statutory rate of payroll by 2.03% of payroll.
- The increase in the actuarial contribution rate is due to a net actuarial loss. The largest factor in the actuarial loss was the investment loss.
- The return on the market value of assets for 2009-2010 was 13.29%, and was -24.08% for the previous year.
- The return on the actuarial value of assets for 2009-2010 was 1.23% compared to the investment return assumption of 8.00%. As a result, the System experienced an investment loss of \$3.3 million.
- The ratio of the actuarial value of assets to the market value of assets was 110.0%. Last year, this ratio was 122.5%.
- A comparison of this year's funded ratio to the prior year is as follows:

	July 1, 2010	July 1, 2009
Actuarial Value of Assets	\$49,325,610	\$50,197,136
Actuarial Accrued Liability	61,782,124	57,555,716
Funded Ratio	79.8%	87.2%

- The unrecognized investment losses represent about 10% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$4.5 million market losses is expected to have a significant impact on the System's future funded ratio and actuarial contribution requirement. This potential impact may be illustrated as follows:
  - If the deferred losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 79.8% to 72.6%.
  - If the deferred losses were recognized immediately in the actuarial value of assets, the actuarial contribution requirement would increase from 22.54% of payroll to 26.59% of payroll.

- The actuarial valuation report as of July 1, 2010 is based on financial data as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- There were no changes in the plan provisions or actuarial assumptions since the previous valuation. We performed an Actuarial Experience Study in early 2010. However, following discussion with the Board, it was decided not to update any actuarial assumptions for this valuation. We will work with the Board to determine the appropriate assumptions to use for the July 1, 2011 valuation.

### III. MEMBER CHARACTERISTICS

Last year, as of July 1, 2009, there were 133 covered active members, four terminated members eligible for a deferred vested benefit, and one terminated member eligible for a refund of his accumulated contributions. During the year, one member terminated employment and four members retired. There were 11 new members in fiscal year 2009-2010. Therefore, there were 139 active Highway Patrolmen covered under the provisions of the System as of July 1, 2010. The significant age, service, salary and accumulated contribution information for these members is summarized below along with comparative figures from the preceding actuarial valuation.

	<u>As of July 1, 2010</u>	<u>As of July 1, 2009</u>
Number of active members		
Eligible for immediate retirement benefits	9	10
Vested (not eligible for immediate retirement)	54	56
Non-vested	<u>76</u>	<u>67</u>
Total*	139	133
Average age	36.9	37.0
Average years of service (excluding service before transfer)	10.4	10.6
Average annual salary	\$55,666	\$52,701
Average accumulated contributions	75,370	74,925

\* Excludes 10 members with split service in the Highway Patrolmen's System and the Main System, and currently in the Main System.

For the 128 members continuing in active service from last year, average salaries increased by 10.57%. The average service decreased by 0.2 years since last year. Distributions of active employees by age, service (excluding service before transfer), and salary are presented in Tables 1 and 2.

Ten members from the Highway Patrol continue to be active in PERS; 24 members from PERS are active members in the Highway Patrol. Liabilities for these members are carried in both systems based on their service in that system.

Four terminated members are eligible for a deferred vested benefit and one terminated member is due a refund.

**TABLE 1**

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

Nearest Age	Total	Years of Employment					
		Under 5	5 - 9	10 - 14	15 - 19	20 - 24	25 & Over
Total	139	52	28	18	19	16	6
20 - 24	4	4	-	-	-	-	-
25 - 29	30	24	6	-	-	-	-
30 - 34	26	11	12	3	-	-	-
35 - 39	30	9	8	11	2	-	-
40 - 44	21	2	2	4	12	1	-
45 - 49	21	2	-	-	5	12	2
50 - 54	7	-	-	-	-	3	4
55 & over	-	-	-	-	-	-	-

**TABLE 2**

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

Nearest Age	Total	Actual Salary							
		Under \$30,000	\$30,000- \$34,999	\$35,000- \$39,999	\$40,000- \$44,999	\$45,000- \$49,999	\$50,000- \$54,999	\$55,000- \$59,999	\$60,000 & Over
Total	139	11	-	-	18	36	14	36	24
20 - 24	4	2	-	-	2	-	-	-	-
25 - 29	30	5	-	-	10	14	1	-	-
30 - 34	26	1	-	-	3	12	5	3	2
35 - 39	30	2	-	-	2	7	6	11	2
40 - 44	21	1	-	-	1	1	2	8	8
45 - 49	21	-	-	-	-	2	-	8	11
50 - 54	7	-	-	-	-	-	-	6	1
55 & over	-	-	-	-	-	-	-	-	-

#### IV. BENEFIT EXPERIENCE

There were 85 pensioners (including four disableds and one suspended retiree) and 25 surviving spouses receiving benefits as of July 1, 2009. During the year ended June 30, 2010, 4 members were awarded retirement pensions, 2 retirees died with beneficiaries and one beneficiary died. Therefore, there were 87 pensioners (including four disableds) and 26 surviving spouses receiving benefits as of July 1, 2010. Key statistics on pensioners and beneficiaries are shown below.

	<u>July 1, 2010</u>	<u>July 1, 2009</u>
Number of pensioners and beneficiaries	113	109*
Annualized benefits in force	\$3,502,382	\$3,324,423
Average monthly benefit	\$2,583	\$2,542
Average age	66.4	65.9

\* Excludes one suspended retiree

Tables 3 and 4 summarize the census data for pensioners and beneficiaries. In the year ended June 30, 2010, benefit payments totaled \$3,402,152, including refund payments of \$131. In the year ended June 30, 2009, benefit payments were \$3,194,169.

**TABLE 3**

*Pensions in Force on July 1, 2010  
by Type of Recipient and Monthly Amount*

Monthly Amount	Total	Pensioner	Beneficiary	Disabled
Total	113	83	26	4
Under \$250	6	-	6	-
250 – 499	4	1	3	-
500 – 749	1	1	-	-
750 – 999	5	-	5	-
1,000 – 1,249	7	1	6	-
1,250 – 1,499	5	1	3	1
1,500 – 1,749	2	1	1	-
1,750 – 1,999	1	1	-	-
2,000 – 2,249	7	6	-	1
2,250 – 2,499	13	11	1	1
2,500 – 2,749	9	8	1	-
2,750 – 2,999	10	9	-	1
3,000 – 3,249	9	9	-	-
3,250 – 3,499	9	9	-	-
3,500 – 3,749	6	6	-	-
3,750 – 3,999	3	3	-	-
4,000 – 4,249	4	4	-	-
4,250 – 4,499	4	4	-	-
4,500 – 4,749	4	4	-	-
4,750 & Over	4	4	-	-

**TABLE 4**

*Pensions in Force on July 1, 2010  
by Type of Recipient and Nearest Age*

Nearest Age	Total	Pensioner	Beneficiary	Disabled
Total	113	83	26	4
Under 55	15	9	2	4
55 - 59	23	23	-	-
60 - 64	18	14	4	-
65 - 69	12	10	2	-
70 - 74	19	12	7	-
75 - 79	10	7	3	-
80 - 84	12	6	6	-
85 - 89	3	1	2	-
90 & over	1	1	-	-

## V. ASSETS

### *Market Value of Assets*

The combined market value of net assets of the North Dakota Public Employees Retirement System (PERS) and the Highway Patrolmen's Retirement System (HPRS) was \$1,519,023,138 as of June 30, 2010, compared to \$1,360,977,213 last year. This year's combined market value represents an increase of 11.61% over the market value one year earlier.

The market value of net assets attributable to the Highway Patrolmen's Retirement System as of July 1, 2010 was \$44,838,156 compared to \$40,973,620 as of July 1, 2009. The rate of return on a market value basis for the HPRS Fund was 13.29% for the year ended June 30, 2010.

### *Actuarial Value of Assets*

The actuarial value of assets are determined as follows:

Market appreciation and depreciation are spread over five years beginning with the year of occurrence. Interest and dividends are recognized immediately. This procedure results in recognition of all changes in market value over a five-year period. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

The above procedure is applied to the combined assets of PERS and HPRS Retirement Income Funds to determine the combined actuarial value of assets. The combined actuarial value was \$1,671,048,709 as of June 30, 2010. The determination of the combined actuarial asset value is shown in Table 5. This table shows that there is approximately \$152 million of depreciation that will be recognized in future years.

Table 6 summarizes the combined investment results over the previous ten-year period. Over this period, the earnings of \$756,520,300 on an actuarial value basis represented an average annual return of 5.75%. For the 2009-2010 year, the actuarial rate of return on the combined assets was 1.48%.

The total actuarial value of assets is allocated to PERS and HPRS in proportion to the reported market value of assets. This allocation is illustrated in Table 7 and results in an actuarial value of assets for HPRS as of July 1, 2010 of \$49,325,610. Last year's actuarial value of assets was \$50,197,136. On an actuarial basis, the rate of return on the HPRS Fund was 1.23% for the year ended June 30, 2010.

Chart 1 on page 13 is a graph showing the historical asset values for the HPRS Fund on both an actuarial and market value basis. A summary of income and disbursements for 2010 and 2009 on an actuarial value basis are given in Table 8 for HPRS. The progress of the HPRS Fund for the last ten years is provided in Table 9. It shows that the actuarial value of assets have decreased over the last two years, but over the eight years before that they increased each year, although the amount of the increase has varied with fluctuations in investment income. Contributions and benefit payments have increased consistently over the period.

A picture of the financial development of the HPRS Fund over the last ten years is provided in Chart 2 on page 18. It shows that benefit payments and expenses currently exceed and continue to grow at a faster pace than contributions. However, during the past ten years overall, 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 reflect market changes in full.

***Investment Return***

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

<b>Year Ending June 30</b>	<b>Market Value</b>	<b>Actuarial Value</b>
2001	(4.47)%	9.36%
2002	(6.94)	3.91
2003	5.19	2.18
2004	16.65	3.16
2005	14.17	4.36
2006	12.04	7.79
2007	19.63	15.84
2008	(5.21)	8.51
2009	(24.05)	1.72
2010	13.25	1.48

The above values demonstrate the fact that the volatility of market value returns is reduced by using an actuarial value of assets. Chart 3 on page 19 illustrates this smoothing effect. By using an actuarial value that reduces the year-to-year fluctuations in investment return, year-to-year fluctuations in contribution requirements are minimized.

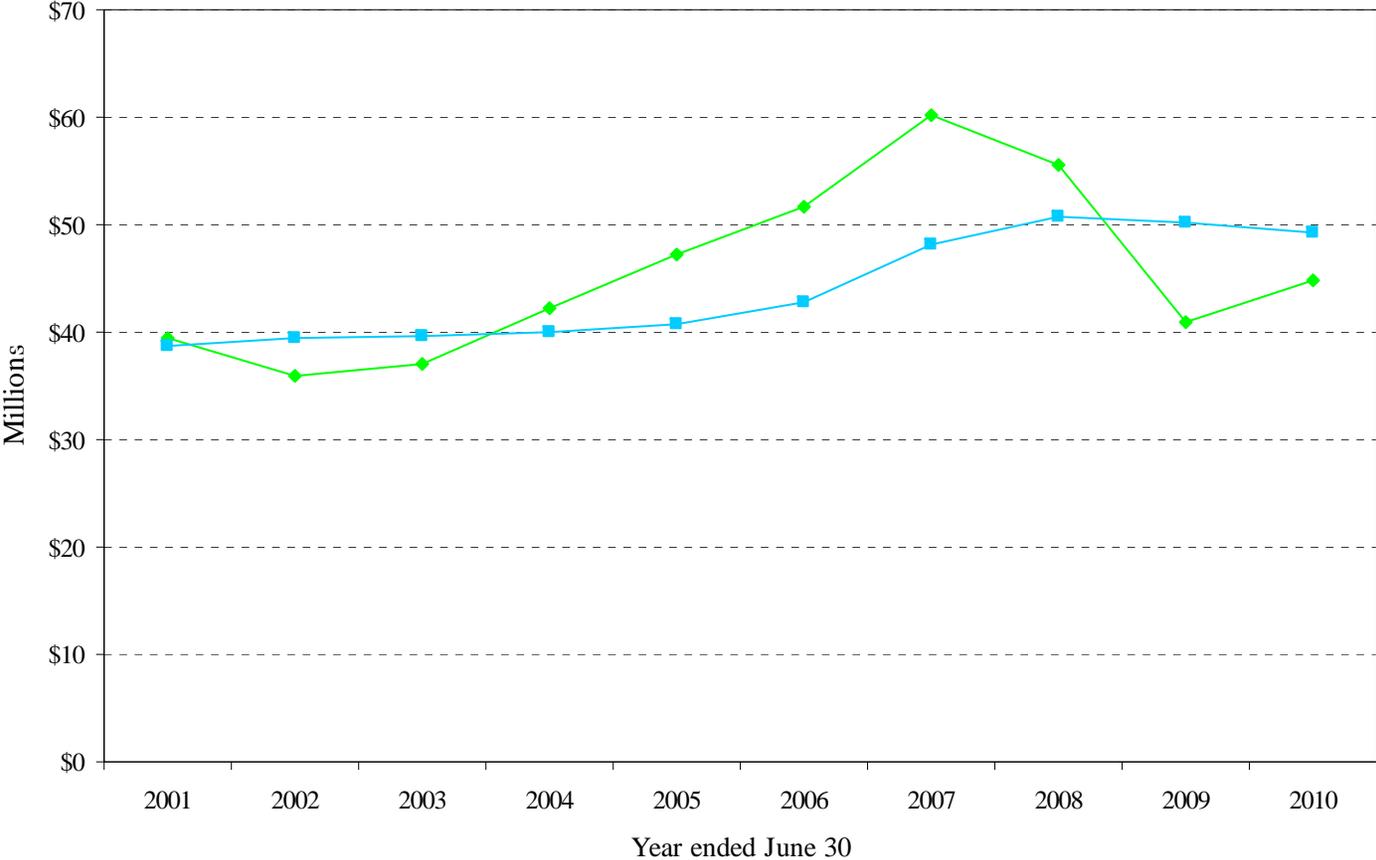
Rates of investment return on the market value basis include all capital appreciation and depreciation. The returns on the actuarial value reflect only a portion of the capital appreciation and depreciation based on the adopted asset valuation method.

**TABLE 5**

***Determination of Actuarial Value of Assets  
(for PERS and HPRS) as of June 30, 2010 and 2009***

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

Chart 1  
Value of Assets (HPRS)



◆ Market Value    ■ Actuarial Value

**TABLE 6***Summary of Combined Investment Results for PERS and HPRS on Actuarial Value of Assets*

Year Ended June 30	Net Interest and Dividend Income*		Other Income**		Total Net Investment Income	
	Amount	Yield	Amount	Yield	Amount	Yield
2001	\$41,086,800	3.89%	\$57,734,900	5.47%	\$98,821,700	9.36%
2002	35,077,400	3.06	9,694,500	0.85	44,771,900	3.91
2003	33,595,900	2.84	(7,793,200)	(0.66)	25,802,700	2.18
2004	30,464,800	2.54	7,398,200	0.62	37,863,000	3.16
2005	29,115,600	2.38	24,276,800	1.98	53,392,400	4.36
2006	24,410,600	1.93	73,910,900	5.86	98,321,500	7.79
2007	34,727,000	2.58	178,771,700	13.26	213,498,700	15.84
2008	32,819,700	2.13	98,332,000	6.38	131,151,700	8.51
2009	29,260,400	1.77	(964,400)	(0.05)	28,296,000	1.72
2010	25,938,200	1.57	(1,337,500)	(0.09)	24,600,700	1.48
Total for Last Ten Years	\$316,496,400		\$440,023,900		\$756,520,300	
Average Yield for last Ten Years					5.75%	

\* Net of investment expenses.

\*\* Includes write-up (down).

**TABLE 7***Allocation of Combined (PERS and HPRS) Actuarial Value of Assets*

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

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

**TABLE 8**

*Summary Statement of Income and Disbursements (HPRS Fund)  
for the Years Ended June 30, 2010 and 2009  
(Actuarial Value Basis)*

	<u>June 30, 2010</u>	<u>June 30, 2009</u>
Contribution Income:		
Employer Contributions	\$ 1,196,562	\$ 1,122,720
Member Contributions	<u>741,271</u>	<u>692,320</u>
Total Contribution Income	\$ 1,937,833	\$ 1,815,040
Less: Administrative Expenses	<u>(18,154)</u>	<u>(19,141)</u>
Net Contribution Income	<u>\$ 1,919,679</u>	<u>\$ 1,795,899</u>
Investment Income:		
Interest and Dividends	\$ 964,213	\$ 1,096,819
Less: Investment Expenses	<u>(189,360)</u>	<u>(207,086)</u>
Net Interest and Dividends	\$ 774,853	\$ 889,733
Write-up of Assets	<u>(163,906)</u>	<u>(103,211)</u>
Net Investment Income	<u>\$ 610,947</u>	<u>\$ 786,522</u>
Total Income Available for Benefit Payments and Reserves	<u>\$ 2,530,626</u>	<u>\$ 2,582,421</u>
Benefit Payments:		
Pension Benefits	\$ (3,402,021)	\$ (3,176,258)
Refunds	<u>(131)</u>	<u>(17,911)</u>
Total Benefit Payments	<u>\$ (3,402,152)</u>	<u>\$ (3,194,169)</u>
Addition to Reserve for Future Benefit Payments	\$ (871,526)	\$ (611,748)
Actuarial Value of Assets, Start of Year	<u>50,197,136</u>	<u>50,808,884</u>
Actuarial Value of Assets, End of Year	<u>\$ 49,325,610</u>	<u>\$ 50,197,136</u>

**TABLE 9*****Progress of the HPRS Fund through June 30, 2010  
(Actuarial Value Basis)***

Year Ended June 30	Employer Contributions	Member Contributions	Administrative Expenses	Net Investment Income	Benefit Payments	Fund at End of Year
2000						\$35,876,466
2001	\$788,125	\$486,332	\$14,482	\$3,321,908	\$1,671,297	38,787,052
2002	814,035	501,850	15,919	1,467,287	2,050,607	39,503,698
2003	833,074	513,812	16,469	792,875	2,063,483	39,563,507
2004	844,241	520,700	16,562	1,268,080	2,222,645	39,957,321
2005	867,803	535,233	16,058	1,799,734	2,447,165	40,696,868
2006	931,206	574,341	17,470	3,235,491	2,662,076	42,758,360
2007	960,487	592,398	19,410	6,854,855	2,978,776	48,167,914
2008	1,058,825	649,861	18,364	4,162,228	3,211,580	50,808,884
2009	1,122,720	692,320	19,141	786,522	3,194,169	50,197,136
2010	1,196,562	741,271	18,154	610,947	3,402,152	49,325,610
Total for last ten years	\$9,417,078	\$5,808,118	\$172,029	\$24,299,927	\$25,903,950	

Chart 2  
Income and Disbursements for HPRS

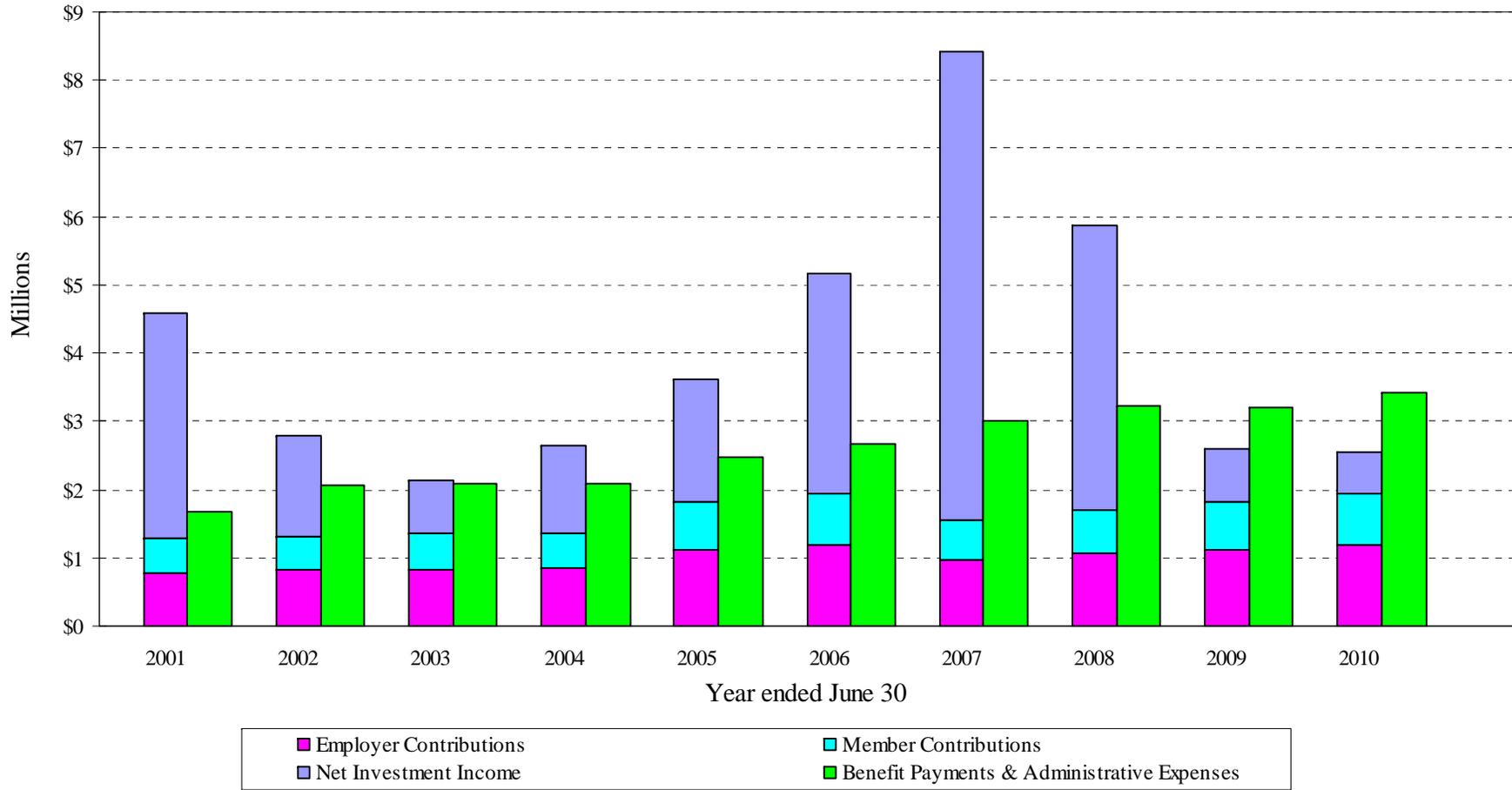
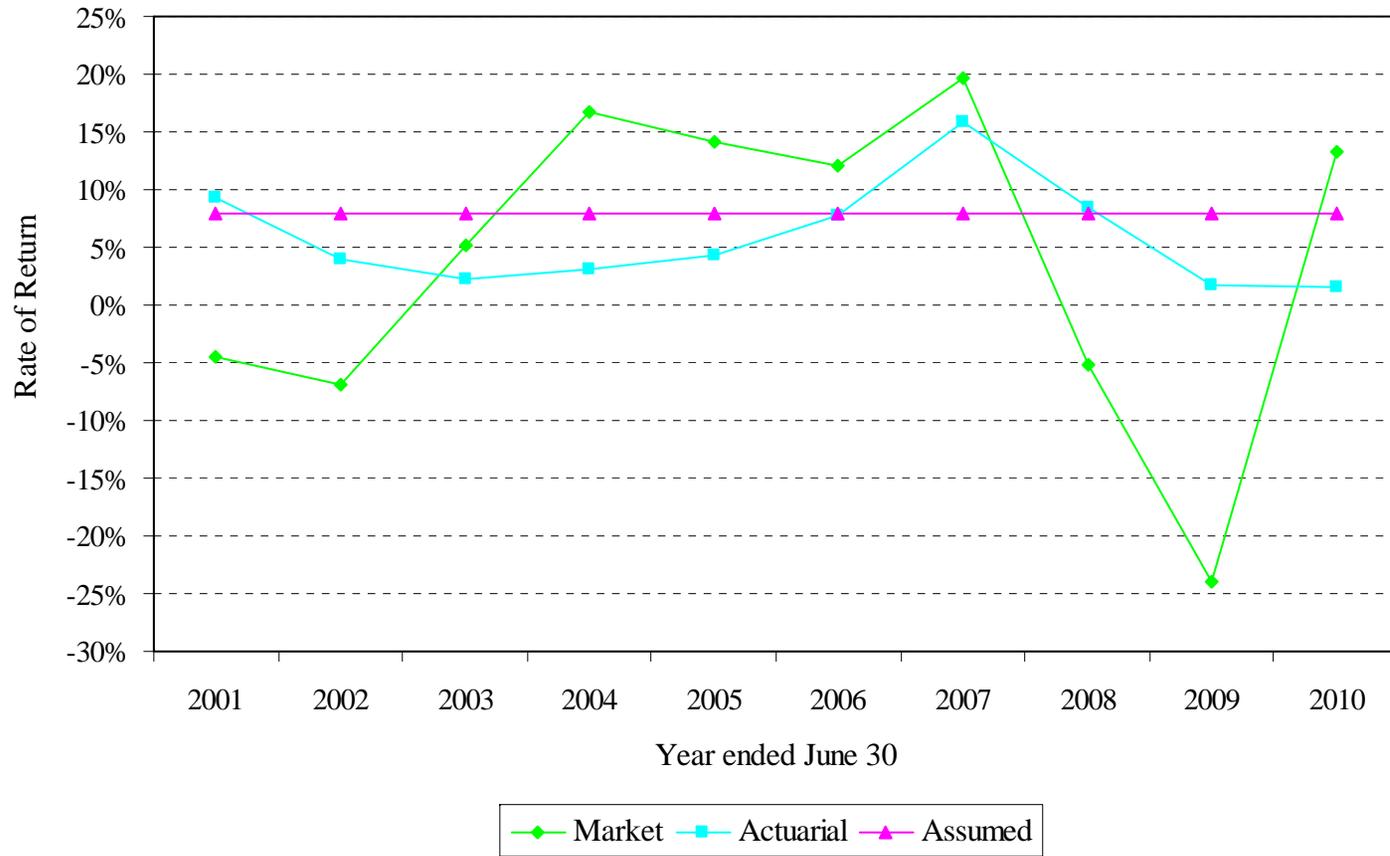


Chart 3  
Investment Returns  
(PERS and HPRS Combined)



## VI. RESULTS OF ACTUARIAL VALUATION

The contribution requirement consists of the normal cost, administrative expense allowance, plus the cost of amortizing the unfunded actuarial accrued liability over a scheduled period of years. The Board has adopted an open amortization period of 20 years with increasing payments. The calculated employer contribution requirements on this basis for fiscal year 2010-2011 are shown below as a dollar amount and as a percentage of the covered payroll of contributing participants.

The components of the actuarial contribution requirement are as follows:

	<u>Amount for 2010 - 2011</u>	<u>Percentage of Payroll</u>
Total normal cost	\$1,655,902	21.40%
Less: member contributions	<u>(796,975)</u>	<u>(10.30)</u>
Net employer normal cost	\$858,927	11.10%
Administrative expense allowance	16,000	0.21
Amortization payment	<u>869,343</u>	<u>11.23</u>
Total employer contribution	\$1,744,270	22.54%

Covered payroll is \$7,737,624 for 139 active members.

The statutory contribution rate is 16.70% of payroll. Hence the plan has a deficit of 5.84% of payroll.

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

	<u>As a Percentage of Payroll</u>
Employer cost rate as of July 1, 2009	18.73%
Investment loss	3.02
Contribution loss	0.09
Plan experience during the year	1.12
Effect of maintaining 20-year amortization schedule	<u>(0.42)</u>
Employer cost rate as of July 1, 2010	22.54%

The development of the unfunded/(surplus) actuarial accrued liability for the year ended June 30, 2010 is as follows:

1. Unfunded/(Surplus) actuarial accrued liability as of July 1, 2009.....	\$7,358,580
2. Normal cost at beginning of year.....	1,448,179
3. Contributions.....	(1,937,833)
4. Administrative expenses.....	16,000
5. Interest.....	<u>627,667</u>
6. Expected unfunded/(surplus) actuarial accrued liability – equals sum of (1) through (5).....	\$7,512,593
7. Changes due to:	
(a) (Gain)/Loss on investments.....	\$3,345,844
(b) (Gain)/Loss on demographics.....	1,595,923
(c) (Gain)/Loss on administrative expenses.....	<u>2,154</u>
(d) Total changes – equals (7a + 7b + 7c).....	<u>4,943,921</u>
8. Unfunded/(Surplus) actuarial accrued liability as of July 1, 2010 – equals (6) plus (7d).....	\$12,456,514

## **VII. INFORMATION REQUIRED BY THE GASB**

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Table 10 shows the schedule of funding progress and includes the Plan's funded ratio.

Table 11 shows the Annual Required Contribution (ARC), Annual Pension Cost (APC) and the Net Pension Obligation (NPO) for the prior six fiscal years ending June 30, 2010.

Chart 4 graphs the funded ratios under the GASB standard for the last ten years. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to cover the Plan's accrued 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.

Funded ratios change over time due to several factors. These factors include the level of contributions, actuarial experience (including investment returns), plan amendments, and changes in actuarial assumptions.

**Table 10****Supplementary Information Required by the GASB – Schedule of Funding Progress**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)</b>
07/01/2005	\$40,696,868	\$46,284,431	\$5,587,563	87.9%	\$5,299,134	105.4%
07/01/2006	42,758,360	49,127,046	6,368,686	87.0%	5,688,205	112.0%
07/01/2007	48,167,914	51,536,518	3,368,604	93.5%	6,128,867	55.0%
07/01/2008	50,808,884	54,558,943	3,750,059	93.1%	6,508,644	57.6%
07/01/2009	50,197,136	57,555,716	7,358,580	87.2%	7,009,297	105.0%
07/01/2010	49,325,610	61,782,124	12,456,514	79.8%	7,737,624	161.0%

**Table 11**

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

<b>Plan Year Ended June 30</b>	<b>Employer Annual Required Contribution (a)</b>	<b>Employer Amount Contributed (b)</b>	<b>Interest on NPO (h) x 8.0% (c)</b>	<b>ARC Adjustment (h) / (e) (d)</b>	<b>Amortization Factor (e)</b>	<b>Pension Cost (a) + (c) – (d) (f)</b>	<b>Change in NPO (f) – (b) (g)</b>	<b>NPO Balance NPO + (g) (h)</b>
2005	\$1,046,646	\$867,803	\$(64,968)	\$(56,677)	14.3286	\$1,038,355	\$170,552	\$(641,545)
2006	904,817	931,206	(51,324)	(44,774)	14.3286	898,267	(32,939)	(674,484)
2007	1,076,146	960,487	(53,959)	(47,072)	14.3286	1,069,259	108,772	(565,712)
2008	905,591	1,058,825	(45,257)	(39,481)	14.3286	899,815	(159,010)	(724,722)
2009	1,025,737	1,122,720	(57,978)	(50,579)	14.3286	1,018,338	(104,382)	(829,104)
2010	1,312,591	1,196,562	(66,328)	(57,864)	14.3286	1,304,127	107,565	(721,539)

Chart 4  
Funded Ratio (HPRS)



## VIII. ACTUARIAL ASSUMPTIONS AND COST METHODS

The actuarial assumptions and cost methods used in the actuarial valuation as of July 1, 2010 are summarized below.

### *Investment Yield*

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

### *Salary Increases*

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

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

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

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

### *Inflation*

The assumed inflation rate is 3.50% per annum.

### *Payroll Growth*

The assumed payroll growth rate is 4.50% per annum.

### ***Age at Retirement***

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

Those retiring with a reduced benefit are assumed to delay commencement until they satisfy the Rule of 80 if that is more valuable.

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

### ***Withdrawal Rates Before Retirement***

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

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

### ***Disability Incidence Rates Before Retirement***

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

### ***Mortality Rates***

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

<u>Age</u>	<u>Retired Members</u>			
	<u>Males</u>		<u>Females</u>	
	<u>Deaths per</u> <u>1,000 Lives</u>	<u>Expected Number</u> <u>of Years of</u> <u>Life Remaining</u>	<u>Deaths per</u> <u>1,000 Lives</u>	<u>Expected Number</u> <u>of Years of</u> <u>Life Remaining</u>
55	5.7	25.2	2.5	30.3
60	8.4	21.0	4.2	25.7
65	13.9	17.0	7.1	21.3
70	24.8	13.3	12.4	17.2
75	40.4	10.2	24.0	13.4
80	67.1	7.6	42.9	10.2
85	106.0	5.6	69.9	7.6

### ***Administrative Expenses***

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

### ***Marital Status for Non-Retired Members***

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

### ***Valuation of Assets***

Investments are carried at an adjusted market value. The net market appreciation (depreciation) is spread over five years in equal dollar amounts, beginning with the year of occurrence. The actuarial value of assets is the market value less deferred appreciation (depreciation). A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

### ***Actuarial Cost Method***

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

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

The normal cost payments are sufficient to finance the benefit program only if there are no changes in plan design and all actuarial assumptions are realized. To the extent that actual experience is less favorable than assumed, additional liabilities not funded through normal cost payments arise. Also, benefit liberalizations that improve earned benefits or benefit eligibility produce additional liabilities. The Board has adopted a 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 4.50% per year. This results in a payment towards the UAAL that is less than interest on the UAAL. Under this method, the UAAL would grow from year to year even if the actuarial required contribution was made and all actuarial assumptions were met.

October 13, 2010

**NORTH DAKOTA HIGHWAY PATROLMEN'S RETIREMENT SYSTEM**

*Actuarial Valuation Certificate*

This is to certify that we have prepared an Actuarial Valuation of the System as of July 1, 2010 in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:

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

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

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

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

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

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

Mark Hamwee, FSA, MAAA, EA  
Vice President & Associate Actuary

Kurt Schneider, ASA, MAAA, EA  
Associate Actuary

## EXHIBIT I

### ACTUARIAL VALUATION RESULTS

1.	Actuarial accrued liability on July 1, 2010:		
	a. Active members .....	\$25,694,868	
	b. Retired members and beneficiaries .....	35,117,944	
	c. Inactive non-retired members .....	<u>969,312</u>	
	d. Total .....		\$61,782,124
2.	Assets at actuarial value (\$44,838,156 at market value) .....		49,325,610
3.	Unfunded (Surplus) actuarial accrued liability - equals (1) minus (2) .....		12,456,514
4.	Member and employer normal cost for ensuing year* .....		1,655,902
5.	Estimated annual salaries of covered members .....		7,737,624
6.	Member normal cost equals - 10.3% of (5) .....		796,975
7.	Employer normal cost for ensuing year - equals (4) minus (6) .....		858,927
8.	Amortization payment - equals 20-year amortization of item (3) as a level percent of aggregate salary* .....		869,343
9.	Administrative expenses .....		16,000
10.	Total employer cost for ensuing year - equals (7) plus (8) plus (9) .....		1,744,270
11.	Total employer cost as percentage of payroll - equals (10) divided by (5) .....		22.54%

\* Adjusted for interest to recognize payments through the year.

## EXHIBIT II

### ACTUARIAL ASSUMPTIONS AND COST METHODS

#### 1. Mortality Tables:

Healthy: 1983 Group Annuity Mortality Table, set back one year for males (not set back for females).

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

#### 2. Annual Withdrawal Rates:

First five years of service: 5% per year.

After five years of service:

Under age 35: 2% at each age.

Age 35 and older: 1% at each age.

Withdrawal rates end upon eligibility for early retirement (age 50 and 10 years of service or Rule 80).

#### 3. Disability Incidence Rates:

Age based rates. Sample rates:

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

#### 4. Retirement Rates:

The following annual rates apply for active members:

<u>Age</u>	<u>Eligible for Rule of 80</u>	<u>Not Eligible for Rule of 80</u>
50 – 54	100%	50%*
55+	100	100

\* Those retiring with a reduced benefit are assumed to delay commencement until they satisfy the Rule of 80 if that is more valuable.

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

**EXHIBIT II (continued)**

**5. Interest Rate:**

8.00% per annum, net of investment expenses.

**6. Annual Administrative Expenses:**

\$16,000.

**7. Salary Scale:**

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

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

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

**8. Inflation:**

3.50% per annum.

**9. Payroll Growth:**

4.50% per annum.

**10. Marital Status:**

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

**11. Workers' Compensation:**

None assumed for disability benefit offset.

## EXHIBIT II (continued)

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

5.00% per annum.

### **13. Split Service:**

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

### **14. Transfers to Main System:**

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

### **15. Actuarial Cost Method:**

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

### **16. Actuarial Value of Assets:**

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

### **EXHIBIT III**

#### **CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS**

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

**EXHIBIT IV**  
**SUMMARY OF PLAN PROVISIONS**

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

**1. Normal Service Retirement:**

Eligibility:

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

Benefit:

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

**2. Early Service Retirement:**

Eligibility:

Attainment of age 50 with 10 years of eligible employment.

Benefit:

The Normal Service Retirement Benefit as determined above, reduced by one-half of one percent for each month before age 55.

**3. Disability Benefit:**

Eligibility:

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

Benefit:

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

**EXHIBIT IV (continued)**

**4. Deferred Retirement:**

Eligibility:

Ten years of eligible employment.

Benefit:

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

<u>Year Beginning</u>	<u>Average Monthly Increase</u>	<u>Three-Year Average Increase</u>	<u>Cumulative Salary Increase</u>
7/1/1994	3.00%	3.01%	3.01%
7/1/1995	2.00	2.86	5.95
7/1/1996	2.00	2.33	8.42
7/1/1997	3.00	2.33	10.95
7/1/1998	1.80	2.27	13.47
7/1/1999	1.26	2.02	15.76
7/1/2000	2.00	1.69	17.71
7/1/2001	1.81	1.69	19.70
7/1/2002	1.73	1.85	21.91
7/1/2003	0.00	1.18	23.35
7/1/2004	0.00	0.58	24.06
7/1/2005	4.00	1.33	25.72
7/1/2006	4.00	2.67	29.07
7/1/2007	4.00	4.00	34.23
7/1/2008	4.00	4.00	39.60
7/1/2009	5.00	4.33	45.65
7/1/2010	5.00	4.67	52.45

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

## EXHIBIT IV (continued)

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

Eligibility:

Ten years of eligible employment.

Benefit:

One of the following options:

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

Eligibility:

Less than 10 years of service nor a surviving spouse.

Benefit:

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

### 6. **Normal and Optional Forms of Payment:**

Normal form of payment:

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

Optional forms of payment:

- 100% joint and survivor annuity
- Twenty-year certain and life annuity
- Ten-year certain and life annuity
- A partial lump sum payment in addition to one of the annuity options above.
- Effective March 1, 2011, an actuarially equivalent graduated benefit option with either a one percent or two percent increase to be applied the first day of January of each year. Not available for disability or early retirements or in combination with a partial lump sum option or a deferred normal retirement option.

**EXHIBIT IV (continued)**

**7. Final Average Salary:**

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

**8. Contributions:**

Members:

10.30% of monthly salary.

State of North Dakota:

16.70% of the monthly salary for each participating member.

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

**EXHIBIT V**  
**CHANGES IN PLAN PROVISIONS**

There were no changes made in the plan provisions since the prior valuation.

5098698v1/01640.001

**RETIREMENT PLAN FOR EMPLOYEES  
OF JOB SERVICE NORTH DAKOTA**

**Actuarial Valuation Report as of July 1, 2010**

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THE SEGAL COMPANY  
5670 Greenwood Plaza Blvd., Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 13, 2010

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

Members of the Board:

We are pleased to submit our report on the actuarial valuation of the Retirement Plan for Employees of Job Service North Dakota as of July 1, 2010. The report includes an analysis of last year's actuarial experience as well as the contribution requirements for the year beginning July 1, 2010.

The census information on which our calculations are based and the financial information were provided by the Retirement Office staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Laura L. Mitchell, 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 would be pleased to answer any questions you may have regarding the report.

Sincerely,

Brad Ramirez, FSA, MAAA, EA  
Consulting Actuary

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

LAKM

cc: Sparb Collins

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## I. INTRODUCTION AND SUMMARY

This report presents the results of the actuarial valuation of the Retirement Plan for Employees of Job Service North Dakota as of July 1, 2010.

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

<u>Valuation Results</u>	<u>July 1, 2010</u>	<u>July 1, 2009</u>
Scheduled contribution at end of year	\$0	\$0
Contribution as a percentage of payroll	0.00%	0.00%
Projected payroll of employees included in cost calculations	\$1,265,787	\$1,487,175
Outstanding balance of frozen initial liability	\$0	\$0
Amortization of frozen initial liability	\$0	\$0
Normal cost	\$0	\$0
Actuarial present value of projected benefits	\$70,986,876	\$72,043,372
Actuarial value of assets	\$73,458,863	\$74,472,806
Market value of assets	\$77,661,493	\$72,155,658

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

As of July 1, 2010, the actuarial present value of projected benefits is 91.4% of the market value of assets. While there is no contribution due at this time, the Employer should be prepared to consider funding policy options in the event that there are actuarial losses in the future.

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

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

## II. VALUATION RESULTS

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

1.	Employees active as of July 1, 2010, with total projected compensation of \$1,611,216.	
a.	Fully vested	31
b.	Not vested	<u>0</u>
c.	Total	31
2.	Employees inactive as of July 1, 2010 with vested rights	4
3.	Pensioners (including disableds) and beneficiaries as of July 1, 2010	122
4.	Pensioners and beneficiaries receiving annuities from The Travelers as of July 1, 2010	<u>89</u>
5.	Total Plan participants as of July 1, 2010	246

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

1.	Actuarial present value of benefits:	
a.	Active employees	\$15,604,283
b.	Inactive vested employees not in pay status	242,151
c.	Pensioners (including disableds) and beneficiaries*	<u>55,140,442</u>
d.	Total	\$70,986,876
2.	Actuarial value of assets (\$77,661,493 at market value)	73,458,863
3.	Outstanding balance as of July 1, 2010 of frozen initial liability	<u>0</u>
4.	Actuarial present value of future normal costs (item 1 – item 2 – item 3, not less than \$0)	\$0
5.	Actuarial present value of future salaries	\$6,819,986
6.	Normal cost percentage (item 4 divided by item 5)	0.00%
7.	Projected payroll of employees included in cost calculations	\$1,265,787
8.	Normal cost (item 6 x item 7)	<u>\$0</u>

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

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

### **Actuarial Experience**

Since July 1, 2009, there was a net actuarial loss which is comprised of a demographic gain of \$2.3 million and an asset loss of \$2.7 million. An analysis of experience in key areas for the year ended June 30, 2010 follows.

### **Salary Increases**

The average salary increase for participants as of July 1, 2010 who were included in the last valuation was 5.09% compared to the 5.0% salary scale assumption. The result is an actuarial loss.

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

There was no COLA granted to retirees and beneficiaries compared to the 5.0% COLA assumption. The result is an actuarial gain.

### **Rate of Return**

The investment rate of return on an actuarial basis was approximately 3.81% for the year ended June 30, 2010. This return is lower than the assumed rate of return of 7.5%, resulting in an actuarial loss. The rate of return on a market value basis was -13.21%.

Table 1 summarizes demographic characteristics for plan participants.

Table 2 presents a distribution of active participants by age and credited service.

Table 3 presents a reconciliation of participant data.

Table 4 summarizes the changes in plan net assets.

Table 5 summarizes the plan assets on a market basis.

Table 6 shows the determination of the actuarial value of assets.

Table 7 shows the development of the NPO and ARC pursuant to GASB 27.

Table 8 shows a Schedule of Funding Progress required by the GASB.

**Table 1****Plan Coverage and Selected Data  
This Year and Preceding Year**

<b>Category</b>	<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>Percent Change</b>
Active participants:			
Number	31	35	(11.4)%
Average age	58.0	57.3	N/A
Average service	34.1	33.4	2.1
Projected compensation	\$1,611,216	\$1,709,424	(5.7)
Average pay	\$51,975	\$48,841	6.4
Inactive participants with rights to immediate or deferred pension	4	4	0
Pensioners (including disableds) and beneficiaries:			
Number paid by retirement plan	122	120	1.7
Total annual benefits	\$3,245,084	\$3,176,263	2.2
Average annual benefit	\$26,599	\$26,469	0.5
Number of Travelers annuitants	89	94	(5.3)
Total annual benefits paid by retirement plan (COLAs)	\$621,197	\$652,446	(4.8)
Average annual benefit paid by retirement plan (COLAs)	\$6,980	\$6,941	0.6

**Table 2**

**Active Employees Included in the  
July 1, 2010 Valuation by Age and Credited Service**

<b>Age</b>	<b>Total</b>	<b>Years of Credited Service</b>			
		<b>0 – 24</b>	<b>25 - 29</b>	<b>30 - 34</b>	<b>35 and Over</b>
<b>Total</b>	31	-	-	22	9
<b>50 – 54</b>	5	-	-	4	1
<b>55 – 59</b>	18	-	-	13	5
<b>60 &amp; over</b>	8	-	-	5	3

**Table 3**

**Reconciliation of Participant Data**

	<b>Active Participants</b>	<b>Vested Former Participants</b>	<b>Pay Status Participants Paid From Plan Assets</b>	<b>Pay Status Participants Paid From The Travelers</b>	<b>Total</b>
Number as of July 1, 2009	35	4	120	94	253
Retirements	(4)	0	4	0	0
Beneficiaries	0	0	0	0	0
Certain period expired	0	0	0	0	0
Died with beneficiary	0	0	0	0	0
Died without beneficiary	<u>0</u>	<u>0</u>	<u>(2)</u>	<u>(5)</u>	<u>(7)</u>
Number as of July 1, 2010	31	4	122	89	246

**Table 4****Statement of Changes in Plan Net Assets (Market Value)**

	<b>July 1, 2010</b>	<b>July 1, 2009</b>
<b>1. Additions</b>		
(a) Contributions	\$114,626	\$119,115
(b) Investment Income		
(i) Interest and Dividends	\$2,042,786	\$1,998,050
(ii) Net Appreciation/(Depreciation)	7,565,552	(15,799,734)
(iii) Net Securities Lending Income	<u>4,884</u>	<u>10,350</u>
(iv) Total Investment Income	\$9,613,222	\$(13,791,334)
(v) Less Investment Expenses	<u>(305,699)</u>	<u>(301,287)</u>
(vi) Net Investment Income	\$9,307,523	\$(14,092,621)
(c) Total Additions	\$9,422,149	\$(13,973,506)
<b>2. Deductions</b>		
(a) Benefit Payments	\$(3,891,996)	\$(3,759,618)
(b) Administrative Expenses	<u>(24,318)</u>	<u>(25,101)</u>
(c) Total Deductions	\$(3,916,314)	\$(3,784,719)
<b>3. Net Increase</b>	\$5,505,835	\$(17,758,225)
<b>4. Net Assets Held in Trust for Pension Benefits</b>		
(a) Beginning of Year	<b>\$72,155,658</b>	<b>\$89,913,883</b>
(b) End of Year	<b>\$77,661,493</b>	<b>\$72,155,658</b>

**Table 5****Statement of Plan Net Assets (Market Value)**

	<b>July 1, 2010</b>	<b>July 1, 2009</b>
<b>1. Assets</b>		
(a) Cash and Cash Equivalents	\$106,319	\$19,619
(b) Receivables		
(i) Contributions	\$9,323	\$9,452
(ii) Interest	<u>156,782</u>	<u>190,846</u>
(iii) Total Receivables	\$166,105	\$200,298
(c) Investments, At Fair Value		
(i) Equities	\$29,873,970	\$23,375,481
(ii) Fixed Income	47,629,114	48,647,686
(iii) Securities Lending Collateral (SIB)	<u>484,406</u>	<u>373,560</u>
(iv) Total Investments	\$77,987,490	\$72,396,727
(d) Total Assets	\$78,259,914	\$72,616,644
<b>2. Liabilities</b>		
(a) Accounts Payable	\$(100,365)	\$(75,118)
(b) Due to Fiduciary Funds	(10,516)	(8,555)
(c) Due to Proprietary Funds	(3,134)	(3,753)
(d) Securities Lending Collateral (SIB)	<u>(484,406)</u>	<u>(373,560)</u>
(e) Total Liabilities	\$(598,421)	\$(460,986)
<b>3. Net Assets for Pension Benefits</b>	<b>\$77,661,493</b>	<b>\$72,155,658</b>

**Table 6****Determination of the Actuarial Value of Assets as of July 1, 2010**

1.	Actuarial Value of Assets as of July 1, 2009	\$74,472,806
2.	Increases During the Year	
	(a) Contributions	\$114,626
3.	Decreases During the Year	
	(a) Benefit Payments	\$(3,891,996)
	(b) Administrative Expenses	(24,318)
	(c) Investment Expenses	<u>(305,699)</u>
	(d) Total Decreases During the Year	\$(4,222,013)
4.	Actual Return – Interest and Dividends	\$2,042,786
5.	Preliminary Actuarial Value at End of Year [(1) + (2) + (3) + (4)]	\$72,408,205
6.	Market Value at End of Year	\$77,661,493
7.	Adjustment Toward Market Value (20% of [(6) – (5)])	\$1,050,658
8.	Adjustment to be Within 20% of Market Value	\$0
9.	Actuarial Value of Assets as of July 1, 2010 [(5) + (7) + (8)]	\$73,458,863
10.	Actuarial Value as a Percentage of Market Value [(9) / (6)]	94.6%

**Table 7****Development of the Net Pension Obligation (NPO) and the Annual Required Contribution (ARC) Pursuant to GASB 27**

<b>Year Ended</b>	<b>Employer Annual Required Contribution (a)</b>	<b>Employer Amount Contributed (b)</b>	<b>Interest on NPO (h) x 7.5%* (c)</b>	<b>ARC Adjustment (h) / (e) (d)</b>	<b>Amortization Factor* (e)</b>	<b>Pension Cost (a) + (c) – (d) (f)</b>	<b>Change in NPO (f) – (b) (g)</b>	<b>NPO Balance NPO + (g) (h)</b>
06/30/2004	-	-	\$(133,787)	\$(137,546)	12.1584	\$3,759	\$3,759	\$(1,668,576)
06/30/2005	-	-	(133,486)	(137,236)	12.1584	3,750	3,750	(1,664,826)
06/30/2006	-	-	(133,186)	(136,928)	12.1584	3,742	3,742	(1,661,084)
06/30/2007	-	-	(124,581)	(130,833)	12.6962	6,252	6,252	(1,654,832)
06/30/2008	-	-	(124,112)	(130,341)	12.6962	6,229	6,229	(1,648,603)
06/30/2009	-	-	(123,645)	(129,850)	12.6962	6,205	6,205	(1,642,398)
06/30/2010	-	-	(123,180)	(129,361)	12.6962	6,181	6,181	(1,636,217)

\* Based on 8% interest through June 30, 2006 and 7.5% thereafter. Amortization period is 30 years open with level dollar payments.

**Table 8****Supplementary Information Required by the GASB – Schedule of Funding Progress**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)</b>	<b>Funded Ratio (a) / (b)</b>	<b>Projected Compensation (c)</b>	<b>UAAL as a Percentage of Covered Payroll** [(b) – (a)] / (c)</b>
07/01/2007	\$75,749,846	\$70,740,512	\$(5,009,334)	107.08%	\$1,843,140	0.0%
07/01/2008	77,020,934	70,804,863	(6,216,071)	108.78%	1,762,644	0.0%
07/01/2009	74,472,806	71,105,891	(3,366,915)	104.74%	1,709,424	0.0%
07/01/2010	73,458,863	70,094,204	(3,364,659)	104.80%	1,611,216	0.0%

\* Starting in 2007, the funded ratio is required to be calculated using liabilities determined under the entry age normal cost method.

\*\* Not less than zero.

### **III. ACTUARIAL METHODS AND ACTUARIAL ASSUMPTIONS**

#### **Actuarial Cost Method**

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

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

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

#### **Asset Valuation Method**

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

The asset value is adjusted toward market value by adding to the “preliminary asset value” 20% of the difference between the market value and the preliminary asset value. The preliminary asset value is the actuarial asset value at the beginning of the year plus net new money. Net new money is the sum of contributions, dividends, and interest, less the sum of benefit payments, administrative expenses and investment fees. If necessary, the actuarial value is further adjusted to be within 20% of market value. A characteristic of this asset valuation method is that, over time, it is more likely 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 Assumptions**

**Mortality tables:**

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

Disabled: 1983 Railroad Retirement Board Disabled Life Mortality Table.

**Disability incidence:** Sample rates shown below.

**Withdrawal rates:** Sample rates shown below.

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

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

**Retirement age:**

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

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

**Actuarial Assumptions (Continued)**

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

#### IV. SUMMARY OF PLAN PROVISIONS

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

##### **Normal retirement**

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

##### **Optional retirement**

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

##### **Early retirement**

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

**Disability**

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

**Vesting**

Age requirement:	None.
Service requirement:	Five years of credited service.
Benefit:	Accrued normal retirement benefit payable at normal or optional retirement. After attainment of early retirement age, reduced benefits may be paid.

Employees who meet the requirements for a vested benefit may elect to receive a return of their accumulated employee contributions (including interest at 4% per year) in lieu of all other benefits under the plan.

**Return of accumulated employee contributions**

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

## **Pre-retirement death benefits**

### Married participants or single participants with eligible children

#### Surviving spouse's benefit:

Age requirement: None.

Service requirement: None.

Benefit: 55% of the greater of (a) or (b).

(a) Accrued normal retirement benefit.

(b) The lesser of (1) or (2).

(1) 40% of average monthly earnings.

(2) Normal retirement benefit based on credited service to age 60.

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

### Single participants with no eligible children

#### 120 payment guarantee:

Age requirement: None.

Service requirement: Five years of credited service.

Benefit: Accrued normal retirement benefit payable for 120 months. Not payable if surviving spouse or children's benefit is payable.

#### Lump sum benefit:

Age requirement: None.

Service requirement: None.

Benefit: Accumulated employee contributions (including interest at 4% per year). Not payable if the surviving spouse, children's benefit or 120 payment guarantee is in effect.

**Post-retirement death benefits** Based on form of payment elected by the pensioner.

**Post-retirement cost-of-living adjustment**

Based on the Consumer Price Index as approved by the Board.

**Participation**

Plan participant before October 1, 1980.

**Credited service**

Monthly salaried employment in a probationary or permanent status including only: service for which contributions were made (including purchased service), eligible military service and unused sick leave.

**Contribution rate**

Employee: 7% of average monthly earnings  
(4% picked up by employer).

Employer: remaining scheduled contribution, if any.

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**North Dakota  
Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 14, 2010  
**SUBJECT:** Retirement Bill Reviews

Attached are the final technical reviews for all the retirement bills including the bill draft for the DC plan. The following is a summary of the retirement bills:

LC Bill Number	Sponsor	Bill Summary
10001.0200	Senator Mathern	A BILL for an Act to amend and reenact sections 54-52.1-03.2 and 54-52.1-03.3 of the North Dakota Century Code, relating to retiree health benefits for members of the legislative assembly.
10051.0100	PERS	A BILL for an Act to amend and reenact sections 39-03.1-09, 54-52-02.9, 54-52-05, 54-52-06.1, and 54-52-06.3, subsection 6 of section 54-52.6-02, and section 54-52.6-09 of the North Dakota Century Code, relating to increased employee contributions under the highway patrolmen's retirement plan and public employees retirement system.
10052.0100	PERS	A BILL for an Act to amend and reenact sections 39-03.1-10, 54-52-02.9, 54-52-06, and 54-52-06.1, subsection 6 of section 54-52.6-02, and section 54-52.6-09 of the North Dakota Century Code, relating to increased employer and temporary employee contributions under the highway patrolmen's retirement plan and public employees retirement system.
10053.0200	PERS	A BILL for an Act to amend and reenact sections 39-03.1-09, 39-03.1-10, 54-52-02.9, 54-52-05, 54-52-06, 54-52-06.1, and 54-52-06.3, subsection 6 of section 54-52.6-02, and section 54-52.6-09 of the North Dakota Century Code, relating to increased employer and employee contributions under the highway patrolmen's retirement plan and public employees retirement system.
10059.0200	PERS	A BILL for an Act to amend and reenact section 15-10-17, Subsection 6 of Section 39-03.1-11, Subsection 1 of Section 39-03.1-11.2, 39-03.1-14.1, 54-52-03, Subsections 3 and 6 of Section 54-52-17, 54-52-27, 54-52-28, Subsection 3 of Section 54-52.1-03 and Subsection 3 of Section 54-52.6-09 of the North Dakota Century Code, relating to special annuity purchases in the alternate retirement program for university system employees, surviving spouse payment options under the highway patrolmen's retirement plan, calculation of member service credit under the highway patrolmen's retirement plan, election of members to public employees retirement system board, calculation of normal retirement date for a peace officer or correctional officer under the public employees retirement system, payment of member account balance under the public employees retirement system, purchase of sick leave credit under public employees retirement system, spousal election to participate in uniform group insurance program, reporting of employer pick-ups under the defined contribution retirement plan, and Internal Revenue Code compliance under the highway patrolmen's retirement plan and public employees retirement system.
10080.0300	Rep. Wald	A BILL for an Act to amend and reenact sections 39-03.1-02 and 39-03.1-07, subsection 4 of section 54-52-01, and sections 54-52-02.3, 54-52-02.5, 54-52-02.9, 54-52.6-01, 54-52.6-02, and 54-52.6-09 of the North Dakota Century Code, relating to a defined contribution retirement plan for state employees; and to provide a penalty.

Segal will be at the Board meeting to review the attached and answer questions.



**NORTH DAKOTA PUBLIC EMPLOYEES  
RETIREMENT SYSTEM**

**Retiree Health Insurance Credit Fund**

*Actuarial Valuation Report as of July 1, 2010*

DRAFT

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THE SEGAL COMPANY  
5670 Greenwood Plaza Blvd., Suite 425 Greenwood Village, CO 80111-2499  
T 303-714-9900 F 303-714-9990 www.segalco.com

October 13, 2010

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

Members of the Board:

It is a pleasure to submit this report that presents the results of our actuarial valuation of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund as of July 1, 2010.

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

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

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

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

Sincerely,

---

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

---

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

---

Kurt Schneider, ASA, MAAA, EA  
Associate Actuary

CZI/bqb

cc: Sparb Collins

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## I. INTRODUCTION

This report summarizes the results of our actuarial valuation as of July 1, 2010. The employer contribution requirements presented in Section V of the report are based on:

1. The present provisions of the North Dakota Public Employees Retirement System Retiree Health Insurance Credit Fund;
2. The characteristics of covered active members, and pensioners and beneficiaries as of July 1, 2010;
3. The assets of the Fund as of June 30, 2010; and
4. Actuarial assumptions regarding investment earnings and rates of participation, retirement, disability, death, etc.

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

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

## II. HIGHLIGHTS

- The present rate of contributions is sufficient to meet the actuarially determined requirement for 2010-2011, based upon the actuarial assumptions and financing objectives approved by the Board.
- The actuarial contribution requirement for 2010-2011 is \$7.1 million, or 0.89% of payroll. The statutory rate of 1.14% of payroll is greater than the actuarially determined rate by 0.25% of payroll. Last year, the statutory rate exceeded the actuarially determined rate of 1.00% by 0.14% of payroll.
- The decrease in the actuarial contribution requirement is mainly due to changes in actuarial assumptions and the approximately ten percent increase in total covered payroll.
- The return on the market value of assets for 2009-2010 was 17.69%, and was -15.10% for the preceding year.
- The return on the actuarial value of assets for 2009-2010 was 1.99% compared to the investment return assumption of 8.0%. As a result, the Fund experienced an investment loss on an actuarial basis of approximately \$2,782,000.
- The ratio of actuarial value of assets to the market value of assets is 106.4%. Last year, this ratio was 124.0%. This change is an expected result of the actuarial smoothing technique.
- A comparison of this year's funded ratio to the prior year is as follows:

	July 1, 2010	July 1, 2009
Actuarial Value of Assets	\$48,723,475	\$44,829,007
Actuarial Accrued Liability	102,805,439	102,191,552
Funded Ratio	47.4%	43.9%

- The unrecognized investment losses represent about 6% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$2.9 million market losses is expected to have a significant impact on the System's future funded ratio and actuarial contribution requirement. This potential impact may be illustrated as follows:
  - If the deferred losses were recognized immediately in the actuarial value of assets, the funded percentage would decrease from 47.4% to 44.5%.
  - If the deferred losses were recognized immediately in the actuarial value of assets, the actuarial contribution requirement would increase from 0.89% of payroll to 0.91% of payroll.

- The actuarial valuation report as of July 1, 2010 is based on financial data as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- Members of the optional defined contribution plan are also eligible to participate in the Retiree Health Insurance Credit Fund. We included 240 of these active members in this actuarial valuation.
- Based on the results of the Actuarial Experience Study, the Board approved several changes to the actuarial assumptions. See Exhibits II and III of the Actuarial Valuation Certificate for a complete summary of assumptions and changes in assumptions.

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### III. MEMBER CHARACTERISTICS

#### *Nonretired Members*

Detailed information for 21,047 active members as of July 1, 2010 was provided by the Retirement Office. The data included name, sex, date of birth, date of hire, months of service, and annual earnings.

Age, service, and compensation data is summarized below:

	<u>Males</u>	<u>Females</u>	<u>Total</u>
Number of active members	8,298	12,749	21,047
Average age	46.9	47.2	47.1
Average years of service	10.9	10.1	10.4
Total annual compensation	\$367,158,798	\$426,475,175	\$793,633,973
Average annual compensation	\$44,247	\$33,452	\$37,708

Distributions of the active members by sex, age, and service as of July 1, 2010 are presented in Tables 1, 2 and 3.

#### *Retired Members*

Information regarding the Fund's pensioners and beneficiaries shows that benefits were being paid to 4,105 individuals on July 1, 2010. The average benefit paid to these retired members is \$115 per month. Their average age is 73.3 years. Distributions of the retired members are presented in Tables 4, 5 and 6 by sex, monthly amount, and current age.

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

Nearest Age	Total	Years of Employment							
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	8,298	3,271	1,490	1,101	795	631	521	350	139
Under 20	7	7	-	-	-	-	-	-	-
20-24	282	279	3	-	-	-	-	-	-
25-29	692	604	87	1	-	-	-	-	-
30-34	726	441	219	66	-	-	-	-	-
35-39	808	374	193	203	38	-	-	-	-
40-44	859	313	171	152	167	56	-	-	-
45-49	1,134	359	232	162	163	141	70	7	-
50-54	1,307	344	188	189	124	165	174	119	4
55-59	1,297	304	169	163	161	146	159	142	53
60-64	844	162	139	109	103	96	92	76	67
65-69	236	58	58	36	28	20	19	2	15
70-74	77	18	23	14	9	5	6	2	-
75 & Over	29	8	8	6	2	2	1	2	-

**TABLE 2**  
***Census of Members in Active Service on July 1, 2010***  
***by Nearest Age and Years of Employment in PERS***  
***(Females)***

Nearest Age	Total	Years of Employment							
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	12,749	5,063	2,536	1,869	1,192	915	647	369	158
Under 20	17	17	-	-	-	-	-	-	-
20-24	325	323	2	-	-	-	-	-	-
25-29	849	762	84	3	-	-	-	-	-
30-34	1,016	651	287	78	-	-	-	-	-
35-39	1,259	676	309	227	45	2	-	-	-
40-44	1,461	680	330	213	162	71	5	-	-
45-49	2,006	645	465	331	208	181	164	11	1
50-54	2,276	591	435	417	275	198	196	151	13
55-59	2,063	442	362	345	281	260	164	131	78
60-64	1,117	206	192	184	169	164	90	63	49
65-69	243	44	47	42	36	34	18	10	12
70-74	87	22	14	23	12	5	8	1	2
75 & Over	30	4	9	6	4	-	2	2	3

**TABLE 3*****Census of Members in Active Service on July 1, 2010  
by Nearest Age and Years of Employment******(All Members)***

Nearest Age	Total	Years of Employment							
		Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over
Total	21,047	8,334	4,026	2,970	1,987	1,546	1,168	719	297
Under 20	24	24	-	-	-	-	-	-	-
20-24	607	602	5	-	-	-	-	-	-
25-29	1,541	1,366	171	4	-	-	-	-	-
30-34	1,742	1,092	506	144	-	-	-	-	-
35-39	2,067	1,050	502	430	83	2	-	-	-
40-44	2,320	993	501	365	329	127	5	-	-
45-49	3,140	1,004	697	493	371	322	234	18	1
50-54	3,583	935	623	606	399	363	370	270	17
55-59	3,360	746	531	508	442	406	323	273	131
60-64	1,961	368	331	293	272	260	182	139	116
65-69	479	102	105	78	64	54	37	12	27
70-74	164	40	37	37	21	10	14	3	2
75 & Over	59	12	17	12	6	2	3	4	3

**TABLE 4*****Distribution of Retired Members Receiving Benefits on July 1, 2010  
by Nearest Age and Monthly Amount******(Males)***

Nearest Age	Total	Monthly Amount						
		Under \$30	\$30-\$59	\$60-\$89	\$90-\$119	\$120-\$149	\$150-\$179	\$180 & Over
Total	1,643	45	154	233	227	361	355	268
Under 50	4	1	2	1	-	-	-	-
50-54	9	1	1	2	1	1	3	-
55-59	61	1	3	2	4	14	31	6
60-64	206	10	15	17	11	58	66	29
65-69	363	5	31	40	60	86	66	75
70-74	359	5	31	49	45	78	79	72
75-79	296	8	30	50	44	68	52	44
80-84	197	11	29	44	28	31	26	28
85 & Over	148	3	12	28	34	25	32	14

**TABLE 5*****Distribution of Retired Members Receiving Benefits on July 1, 2010  
by Nearest Age and Monthly Amount******(Females)***


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Nearest Age	Total	Monthly Amount						
		Under \$30	\$30-\$59	\$60-\$89	\$90-\$119	\$120-\$149	\$150-\$179	\$180 & Over
Total	2,462	113	376	557	472	477	298	169
Under 50	7	2	2	1	1	1	-	-
50-54	23	3	5	3	3	2	7	-
55-59	85	7	6	7	9	8	45	3
60-64	310	18	45	37	32	93	50	35
65-69	507	16	56	87	111	128	66	43
70-74	517	30	92	129	99	101	46	20
75-79	428	18	74	114	88	76	35	23
80-84	319	9	59	103	65	36	27	20
85 & Over	266	10	37	76	64	32	22	25

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**TABLE 6*****Distribution of Retired Members Receiving Benefits on July 1, 2010  
by Nearest Age and Monthly Amount******(All Retired Members)***

Nearest Age	Total	Monthly Amount						
		Under \$30	\$30-\$59	\$60-\$89	\$90-\$119	\$120-\$149	\$150-\$179	\$180 & Over
Total	4,105	158	530	790	699	838	653	437
Under 50	11	3	4	2	1	1	-	-
50-54	32	4	6	5	4	3	10	-
55-59	146	8	9	9	13	22	76	9
60-64	516	28	60	54	43	151	116	64
65-69	870	21	87	127	171	214	132	118
70-74	876	35	123	178	144	179	125	92
75-79	724	26	104	164	132	144	87	67
80-84	516	20	88	147	93	67	53	48
80 & Over	414	13	49	104	98	57	54	39

#### IV. ASSETS

##### *Market Value of Assets*

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

	<u>June 30, 2010</u>	<u>June 30, 2009</u>
Investments	\$45,217,546	\$35,622,476
Cash	87,707	82,374
Contributions receivable	615,944	492,061
Interest receivable	64,413	156,873
Accounts payable	<u>(206,813)</u>	<u>(204,993)</u>
Net assets	\$45,778,797	\$36,148,791

The rate of return on the market value basis was 17.69% for the year ended June 30, 2010.

##### *Actuarial Value of Assets*

The actuarial value of assets are determined as follows:

Market appreciation and depreciation are spread over five years beginning with the year of occurrence. Interest and dividends are recognized immediately. This procedure results in recognition of all changes in market value over five years. A characteristic of this asset valuation method is that, over time, it is more likely than not to produce an actuarial value of assets that is less than the market value of assets.

The actuarial value of assets as of June 30, 2010 was \$48,723,475 compared to \$44,829,007 as of June 30, 2009. On an actuarial basis, the rate of return was 1.99% for the year ended June 30, 2010.

Table 7 shows that there is approximately \$2.9 million of depreciation that will be recognized in future years. For the prior year, there was approximately \$8.7 million of depreciation to be recognized in future years.

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

**TABLE 7**

*Determination of Actuarial Value of Assets  
as of June 30, 2010 and 2009*

<u>Year Ending</u>	<u>Total Appreciation (Depreciation)</u>	<u>June 30, 2010</u>		<u>June 30, 2009</u>	
		<u>Percent Deferred</u>	<u>Amount Deferred</u>	<u>Percent Deferred</u>	<u>Amount Deferred</u>
June 30, 2006	\$1,796,221	0%	\$0	20%	\$359,244
June 30, 2007	4,926,308	20%	985,262	40%	1,970,523
June 30, 2008	(7,701,312)	40%	(3,080,525)	60%	(4,620,787)
June 30, 2009	(7,986,495)	60%	(4,791,897)	80%	(6,389,196)
June 30, 2010	4,928,103	80%	<u>3,942,482</u>	N/A	<u>0</u>
(a) Total Deferred as of Valuation Date			(\$2,944,678)		(\$8,680,216)
(b) Total Appreciation (Depreciation) for last five Plan Years			(\$4,037,175)		(\$7,131,999)
(c) Write-Up/(Down) Amount for the year - equals 20% of (b)			(\$807,435)		(\$1,426,400)
			<u>July 1, 2010</u>		<u>July 1, 2009</u>
Market Value of Assets			\$45,778,797		\$36,148,791
Less: Deferred Appreciation (Depreciation)			<u>(2,944,678)</u>		<u>(8,680,216)</u>
Actuarial Value of Assets			\$48,723,475		\$44,829,007
Actuarial Value as a Percentage of Market Value			106.43%		124.01%

**TABLE 8**

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

	<u>June 30, 2010</u>	<u>June 30, 2009</u>
Contribution Income:		
Employer Contributions	\$8,392,847	\$6,771,699
Member Contributions	6,673,673	5,851,707
Service Credit Repurchases	<u>237,735</u>	<u>169,242</u>
Total Contribution Income	\$15,304,255	\$12,792,648
Less: Administrative Expenses	<u>(102,353)</u>	<u>(115,207)</u>
Net Contribution Income	<u>\$15,201,902</u>	<u>\$12,677,441</u>
Investment Income:		
Interest and Dividends	\$1,830,840	\$1,810,041
Less: Investment Expenses	<u>(100,256)</u>	<u>(75,032)</u>
Net Interest and Dividends	\$1,730,584	\$1,735,009
Write-Up of Assets	<u>(807,435)</u>	<u>(1,426,400)</u>
Net Investment Income	<u>\$923,149</u>	<u>\$308,609</u>
Total Income Available for Benefit Payments and Reserves	<u>\$16,125,051</u>	<u>\$12,986,050</u>
Benefit Payments:		
Health Credit Benefits	\$(5,563,631)	\$(4,854,724)
Refunds	(3,932)	(2,846)
Health Premium Paid	<u>(6,663,020)</u>	<u>(5,842,613)</u>
Total Benefit Payments	<u>\$(12,230,583)</u>	<u>\$(10,700,183)</u>
Addition to Reserve for Future Benefit Payments	\$3,894,468	\$2,285,867
Actuarial Value of Assets, Start of Year	<u>44,829,007</u>	<u>42,543,140</u>
Actuarial Value of Assets, End of Year	<u>\$48,723,475</u>	<u>\$44,829,007</u>

## V. RESULTS OF ACTUARIAL VALUATION

The contribution requirement consists of the normal cost, administrative expense allowance, plus the cost of amortizing the unfunded actuarial accrued liability over a scheduled period of years. The Board has adopted an amortization period of 40 years beginning July 1, 1990 (20 years remaining as of July 1, 2010). Amortization payments are based on a level percent of payroll. The calculated employer contribution requirements on this basis for fiscal year 2010-2011 are shown below as a dollar amount and as a percentage of the total compensation of contributing employees.

The components of the actuarial contribution requirement are as follows:

	<u>Amount for 2010 – 2011</u>	<u>Percentage of Payroll</u>	<u>Cost per Active Employee</u>
Normal cost	\$3,181,820	0.40%	\$151
Administrative expense allowance	97,000	0.01	5
Amortization payment	<u>3,774,395</u>	<u>0.48</u>	<u>179</u>
Total employer contributions	\$7,053,215	0.89%	\$335

Covered payroll is \$793,633,973 for 21,047 active employees.

The statutory contribution rate is 1.14% of payroll. Hence the plan has a margin of 0.25% of payroll.

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

	<u>As a Percentage of Payroll</u>
Employer cost rate as of July 1, 2009	1.00%
Investment loss	0.02
Contribution gain	(0.01)
Plan experience	(0.06)
Change in assumptions	<u>(0.06)</u>
Employer cost rate as of July 1, 2010	0.89%

## VI. FUNDING STATUS

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

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

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

As of July 1	Actuarial Accrued Liability	Actuarial Value of Assets	Funded Ratio
2005	\$78,090,560	\$30,891,785	39.6%
2006	82,632,628	34,020,413	41.2
2007	85,342,012	38,881,121	45.6
2008	87,592,818	42,543,140	48.6
2009	102,191,552	44,829,007	43.9
2010	102,805,439	48,723,475	47.4

## **VII. ACTUARIAL ASSUMPTIONS AND COST METHODS**

The assumptions and cost methods used in the actuarial valuation as of July 1, 2010 are summarized below. Details can be found in Exhibit II of the attachment. Based on the Actuarial Experience Study, several actuarial assumptions were changed. Exhibit III of the attachment describes these changes.

### ***Investment Return***

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

### ***Retirement Rates***

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

For members of the Main System, retirement rates vary depending on age and whether the member is eligible for the Rule of 85. The Main System rates are detailed in Exhibit II.

### ***Withdrawal Rates before Retirement***

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

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

***Disability Rates***

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

<u>Age</u>	<u>Males</u>	<u>Females</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

***Mortality Rates***

The reserve required to pay a member’s retirement benefits depends on the period over which payments will be received. The assumption for PERS members is based on the 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 (no age setback for females) for disabled members. The schedule below shows the annual mortality rates and life expectancies underlying the healthy mortality tables for PERS.

<u>Age</u>	<u>Retired Members</u>			
	<u>Males</u>		<u>Females</u>	
	<u>Deaths per 1,000 Lives</u>	<u>Expected Number of Years of Life Remaining</u>	<u>Deaths per 1,000 Lives</u>	<u>Expected Number of Years of Life Remaining</u>
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

***Administrative Expenses***

Annual administrative expenses are assumed to be \$97,000.

***Marital Status***

For PERS, 80% of active male members and 65% of active female members are assumed to have spouses, except for Judges, for whom 100% are assumed to have spouses.

For the Highway Patrol, 90% of all active members are assumed to have spouses.

Males are assumed to be three years older than their female spouses.

***Valuation of Assets***

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

***Participation Rates***

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

Main System, National Guard and Law Enforcement		Judges and Highway Patrol	
<u>Years of Service</u>	<u>Participation Rate</u>	<u>Years of Service</u>	<u>Participation Rate</u>
3 - 4	30%	5 - 9	50%
5 - 9	50%	10 - 14	65%
10 - 14	65%	15 - 19	80%
15 - 19	80%	20 - 24	85%
20 - 24	85%	25 and over	90%
25 and over	90%		

***Projected Unit Credit Actuarial Cost Method***

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

The actuarial accrued liability for active members is equal to the actuarial present value of the benefits earned in all prior years. The actuarial assumptions used to determine the liabilities for members of the optional defined contribution plan are the same as those used for the Main System. The actuarial accrued liability for members currently receiving benefits and for participants entitled

to deferred benefits is the actuarial present value of the benefits expected to be paid. The unfunded actuarial accrued liability is equal to the actuarial accrued liability minus the actuarial value of assets. This amount is amortized as a level percentage of payroll over a fixed period of years. Payroll is assumed to increase by 4.5% per year.

DRAFT

October 13, 2010

**NORTH DAKOTA PUBLIC EMPLOYEES RETIREMENT SYSTEM  
RETIREE HEALTH INSURANCE CREDIT FUND**

*Actuarial Valuation Certificate*

This is to certify that we have prepared an Actuarial Valuation of the Fund as of July 1, 2010 in accordance with generally accepted actuarial principles and practices.

The certificate contains the following attached exhibits:

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

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

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

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

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

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

Kurt Schneider, ASA, MAAA, EA  
Associate Actuary

**EXHIBIT I**

**ACTUARIAL VALUATION RESULTS**

1. Actuarial accrued liability on July 1, 2010:	
a. Active members	\$55,944,654
b. Retired members and beneficiaries	46,860,785
c. Total.....	\$102,805,439
2. Assets at actuarial value (\$45,778,797 at market value) .....	48,723,475
3. Unfunded actuarial accrued liability - equals (1) minus (2).....	54,081,964
4. Normal cost for ensuing year* .....	3,181,820
5. Amortization payment - equals 20-year amortization of item (3) as a level percent of total payroll* .....	3,774,395
6. Administrative expenses.....	97,000
7. Total cost for ensuing year - equals (4) plus (5) plus (6).....	7,053,215
8. Total payroll of covered members.....	793,633,973
9. Total employer cost as percentage of payroll - equals (7) divided by (8).....	0.89%

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\* Adjusted for interest to recognize payments throughout the year.

## EXHIBIT II

### ACTUARIAL ASSUMPTIONS AND COST METHODS

#### 1. Mortality Tables:

Active PERS members and retirees

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

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

Active Highway Patrol members

Healthy: 1983 Group Annuity Mortality Table, set back one year for males (not set back for females).

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

#### 2. Annual Withdrawal Rates:

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

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

<i>Select Period</i>						<i>Ultimate Period</i>	
Year of Employment						Age	Rate
Age	0	1	2	3	4		
29 & Under	22%	18%	16%	14%	14%	20 - 24	8.8%
30 - 39	16	14	12	12	11	25 - 29	8.8
40 & Over	12	10	10	8	7	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

Withdrawal rates end upon eligibility for early retirement.

**EXHIBIT II (continued)**

**3. Disability Incidence Rates:**

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

Sample rates for PERS are:

<u>Age</u>	<u>Males</u>	<u>Females</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

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

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

Annual rates for the Main System are as follows:

<u>Age</u>	<u>Unreduced*</u>	<u>Early</u>	<u>Age</u>	<u>Unreduced*</u>	<u>Early</u>
51	8%	0%	63	25%	15%
52	8	0	64	30	10
53	8	0	65	30	
54	8	0	66	20	
55	8	2	67	20	
56	10	2	68	20	
57	10	2	69	20	
58	10	2	70	20	
59	10	2	71	20	
60	10	4	72	20	
61	20	10	73	20	
62	35	20	74	20	
			75	100	

\*Age 65 or Rule of 85

**EXHIBIT II (continued)**

**5. Participation Rates:**

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

<u>Main System, National Guard and Law Enforcement</u>		<u>Judges and Highway Patrol</u>	
<u>Years of Service</u>	<u>Participation Rate</u>	<u>Years of Service</u>	<u>Participation Rate</u>
3 - 4	30%	5 - 9	50%
5 - 9	50%	10 - 14	65%
10 - 14	65%	15 - 19	80%
15 - 19	80%	20 - 24	85%
20 - 24	85%	25 or more	90%
25 or more	90%		

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

Main System, National Guard and Law Enforcement:

60% of male retirees and 25% of female retirees will elect a joint and survivor form of pension from the retirement system in which they participated.

Judges:

100% of retirees will elect a joint and survivor form of pension from the retirement system.

Highway Patrol:

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

**7. Interest Rate:**

8.00% per annum, net of investment expenses.

**8. Annual Administrative Expenses:**

\$97,000.

**9. Inflation:**

3.50% per annum.

## EXHIBIT II (continued)

### **10. Marital Status:**

Main System, National Guard and Law Enforcement:

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

Judges:

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

Highway Patrol:

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

### **11. Optional Defined Contribution Plan:**

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

### **12. Payroll Growth:**

4.50% per annum

### **13. Actuarial Cost Method:**

Projected Unit Credit Actuarial Cost Method. Unfunded actuarial accrued liability amortized in installments increasing by the payroll growth assumption each year over a fixed period that ends on June 30, 2030.

### **14. Actuarial Value of Assets:**

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

## EXHIBIT III

### CHANGES IN ACTUARIAL ASSUMPTIONS AND COST METHODS

Based on the Actuarial Experience Study, several assumptions have been changed for Main, Judges, National Guard and Law Enforcement. The previous assumptions for the Main System are provided below. Previous assumptions for the other systems are detailed in the valuation report for their retirement system.

#### 1. Mortality Tables:

Healthy: 1983 Group Annuity Mortality Table, set back one year for males (not set back for females).

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

#### 2. Annual Withdrawal Rates:

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

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

Withdrawal rates end upon eligibility for early retirement.

**EXHIBIT III (continued)**

**3. Disability Incidence Rates:**

Sample rates for PERS are:

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

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

Annual rates for the Main System are as follows:

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

Age 64 or older and 20 years of service: 100%

**EXHIBIT III (continued)**

**5. Participation Rates:**

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

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

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

Main System, Judges, National Guard and Law Enforcement:

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

**7. Annual Administrative Expenses:**

\$65,000.

**8. Marital Status:**

Main System, Judges, National Guard and Law Enforcement:

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

## EXHIBIT IV

### SUMMARY OF PLAN PROVISIONS

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

#### 1. Normal Retirement:

Age requirement:

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

Service requirement:

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

Other requirements:

Participation in the North Dakota Uniform Group Insurance Program.

Benefit amount:

A monthly stipend equal to \$5.00 times service.

#### 2. Early Retirement:

Age requirement:

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

Service requirement:

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

**EXHIBIT IV (continued)**

Benefit amount:

Main System and Judges:

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

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

Highway Patrol, National Guard and Law Enforcement:

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

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

**3. Disability Retirement:**

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

**4. Pre-Retirement Death Benefit:**

Age requirement:	None.
Service requirement:	
Main System, National Guard and Law Enforcement:	Three years.
Judges:	Five years.
Highway Patrol:	Ten years.
Benefit amount:	Same as Normal Retirement Benefit accrued to the date of the member's death, payable for as long as benefits are payable to the spouse from the Retirement System under the standard option.

## EXHIBIT IV (continued)

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

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

### 6. **Alternative Options:**

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

### 7. **Service:**

Members receive credit for each year and month of employment.

### 8. **Contributions:**

The employer contributes 1.14% of covered salaries and wages for participating employees.

**EXHIBIT V**

**CHANGES IN PLAN PROVISIONS**

There were no changes made in the plan provisions since the prior valuation.

DRAFT



THE SEGAL COMPANY  
5670 Greenwood Plaza Boulevard Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 13, 2010

Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, ND 58505-0360

Re: **Technical Comments – Bill Draft No. 10001.0200**

Dear Representative Grande:

The following presents our analysis of the proposed changes found in Bill Draft No. 10001.0200:

***Systems Affected:*** Retiree Health Insurance Credit Fund

***Summary:*** The proposed legislation would provide a monthly retiree health credit to former members of the legislative assembly (or their surviving spouses) who served at least four years in the legislative assembly equal to 50% of the monthly credit payable to other eligible members of the Retiree Health Insurance Credit Fund. The monthly retiree health credit to members of the legislative assembly would be calculated at \$2.50 multiplied by the member's years of service in the legislative assembly, not to exceed 25 years. It appears that there would be no reduction for age at commencement, unlike PERS members. The bill also requires the legislative assembly to contribute monthly to the Retiree Health Insurance Credit Fund an amount determined by the board sufficient to actuarially fund participation by eligible members of the legislative assembly.

***Actuarial Cost Analysis:***

This bill would not have a significant actuarial cost impact on the Retiree Health Insurance Credit Fund.



**Technical Comments:** Our comments on the bill are as follows:

**General**

The purpose of the bill is to provide a monthly retiree health credit for a new group of employees in order to help members of the legislative assembly defray the cost of health care after employment, as well as provide for adequate funding of this benefit.

**Benefits Policy Issues**

➤ Adequacy of Retirement Benefits

The bill has no direct impact on retirement benefits. However, the bill indirectly enhances any retirement benefits for members of the legislative assembly by reducing the need for retirees to use retirement benefits to pay for retiree health benefits.

➤ Benefits Equity and Group Integrity

The bill enhances the benefits equity of retiree health credits for a specific group of State employees, members of the legislative assembly, as compared to other State employees. However, the resulting benefits for members of the legislative assembly would be one-half of the amount of other State employees.

➤ Competitiveness

No impact.

➤ Purchasing Power Retention

As this is a new benefit for members of the legislative assembly, there is no impact on the retention of purchasing power of existing retirement or retiree health benefits.

➤ Preservation of Benefits

No impact.

➤ Portability

No impact.

➤ Ancillary Benefits

No impact.

## **Funding Policy Issues**

### ➤ Actuarial Impacts

Since the bill requires the legislative assembly to contribute to the Retiree Health Insurance Credit Fund, we have estimated what the contribution requirement would be.

The demographic data for the 141 current members of the legislative assembly was provided by PERS staff and included the gender, date of birth, marital status and years of legislative service. The PERS staff also included demographic data on 424 former members, 73 of which are currently enrolled in the State's group health insurance plan. We have assumed only the 73 currently enrolled will continue in the group health insurance plan.

The assumptions used were those adopted by the Board for Main members in the July 1, 2010 valuation of the Retiree Health Insurance Credit Fund, except as follows:

- The withdrawal and retirement assumptions were combined into a single assumption, since the only requirement for benefit eligibility is that the plan member be a former member of the legislative assembly with at least four years of legislative service and be enrolled in the State's group health insurance plan.
- The retirement assumption is that after every four years of service a member of the legislature who is less than age 65 has a 10% chance of not being re-elected. The retirement assumption is 100% at age 65.

Under these assumptions, the Actuarial Accrued Liability for the current members as of July 1, 2010 would be \$522,191. If this were to be amortized using the current policy of the Retiree Health Insurance Credit Fund for Main members, the required annual contribution would be \$36,444. In addition to this amortization amount, the annual Normal Cost would be \$11,102. This would result in a required monthly payment of \$3,962 by the legislative assembly, which is approximately 1.85% of legislative assembly payroll. This is based on the total salary expenditures of the legislative assembly for the 2007-09 biennium of \$4,716,817.

If the cost of the proposed legislation were to be spread over the payroll of all active members in the Retiree Health Insurance Credit Fund, the cost would be less than 0.01% of payroll. This is based on the projected annual payroll from the July 1, 2010 valuation of \$793,633,973.

### ➤ Investment Impacts

- ◆ **Asset Allocation:** The bill does not create new investment asset allocation issues.
- ◆ **Cash Flow Impacts:** The bill would have a minimal, immediate, positive impact on cash flow to the Retiree Health Insurance Credit Fund that would be offset by additional benefit payouts in the future.

**Administration Issues**

➤ Implementation Issues

This bill would require the Public Employees Retirement System (PERS) to establish a recordkeeping system for tracking service of members of the legislative assembly.

➤ Administrative Costs

The bill would have minimal effect on the PERS' administrative costs. However, the contributions made by the legislative assembly for benefits to its members would increase as noted previously in the actuarial cost analysis.

➤ Employee Communications

Employee communications will be necessary to describe the eligibility requirements and monthly amount of the retiree health credit to members of the legislative assembly.

➤ Miscellaneous and Drafting Issues

None.

The calculations were made using generally accepted actuarial practices and are based on demographic data as of July 1, 2010 and August 2010 provided by the system and use assumptions adopted by the Board for the July 1, 2010 valuation. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

Please call if you have any questions or comments.

Sincerely,



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



THE SEGAL COMPANY  
5670 Greenwood Plaza Boulevard Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 14, 2010

Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, ND 58505-0360

Re: **Technical Comments – Bill Draft No. 10051.0100**

Dear Representative Grande:

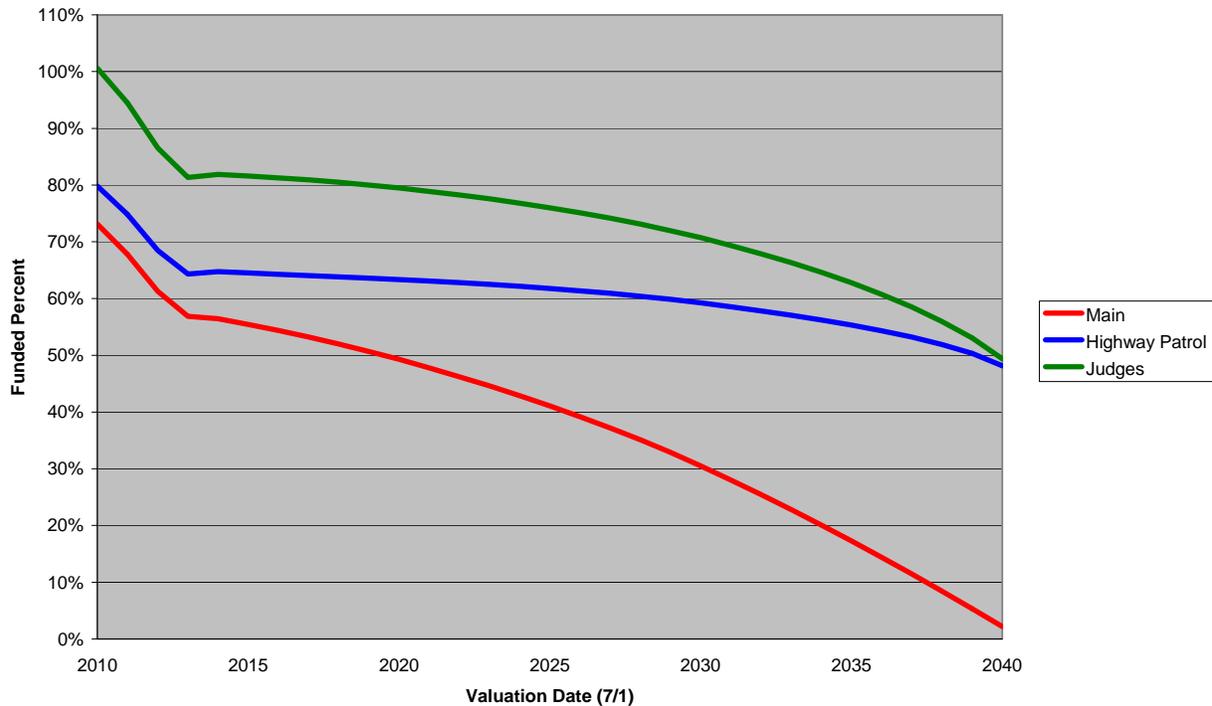
The following presents our analysis of the proposed changes found in Bill Draft No. 10051.0100:

***Systems Affected:*** North Dakota Public Employees Retirement System (PERS) Hybrid Plan, Defined Contribution Plan and Highway Patrolmen’s Retirement System (HPRS)

***Summary:*** The proposed legislation would increase the member contribution rate mandated by statute in the HPRS, Hybrid Plan (Main and Judges only) and Defined Contribution Plan by 2% of the member’s monthly salary beginning January 2012, plus an additional 2% increase in member contribution rates each calendar year thereafter through January 2015. The member contributions for peace officers and correctional officers in the Hybrid Plan employed by political subdivisions would increase 1%, instead of 2%, over the same time period. The challenges facing the PERS system are shown in the following graph:



**Projected Funded Ratios**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on July 1, 2010 Data**



**Actuarial Cost Analysis:** This bill would not have an actuarial impact on the liabilities of either the Hybrid Plan and Highway Patrolmen’s Retirement System. Exhibits I and II show the current funding level and how the current funding levels would be positively affected by this increased contribution rate.

As of July 1, 2010, the Main plan had a funding deficit of 6.64% of covered payroll based upon a 20-year open amortization method. This means the statutory contributions are less than the actuarially required contributions by that amount. This deficit is projected to increase over the next few years as investment losses experienced in 2008 are recognized in the calculation of the Actuarial Value of Assets. Projections of future funded status have indicated that unless this gap is addressed, the Main plan will become insolvent in approximately 2040. Increasing the member contributions by 8% over the period from January 2012 to January 2015 is projected to close this funding deficit. Furthermore, projections indicate that the Main plan would no longer be expected to become insolvent in the next 30 years under the assumed 8.0% investment return scenarios.

As of July 1, 2010, the HPRS plan had a funding deficit of 5.84% of covered payroll based upon a 20-year open amortization method. This means that the amount of statutory contributions is less than the actuarially required contributions by that amount. This deficit is projected to increase over the next few years as investment losses experienced in 2008 are recognized in the calculation of the Actuarial Value of Assets. Projections of future funded status have indicated that unless this gap is addressed, the HPRS plan will not become insolvent in the next 30 years but the funding ratio will drop from 80% to 48%. Increasing the member contributions by 8% over the period from January 2012 to January 2015 is projected to close this funding deficit. Furthermore, projections indicate that the HPRS plan would have an increase in the funded ratio from 80% to 94% over the next 30 years under the assumed 8.0% investment return scenarios.

Exhibits I, II, and the following charts illustrate the results of these projections.

*Technical Comments:* Our comments on the bill are as follows:

### **General**

The bill would significantly increase funding to the Systems in the form of additional member contributions.

### **Benefits Policy Issues**

#### ➤ Adequacy of Retirement Benefits

No impact on the defined benefit plans. The additional contributions to the DC plan will provide additional retirement income.

#### ➤ Benefits Equity and Group Integrity

To the extent increased member contributions reduce the take-home pay of members, this bill may create salary inequity between peace officers/correctional officers employed by political subdivisions (1% annual increase) and other employees of political subdivisions (2% annual increase). Note that the Bill does not increase the contribution requirement for peace officers/correctional officers employed by the State Bureau of Criminal Investigation nor does it increase it for National Guard security officers or firefighters.

#### ➤ Competitiveness

To the extent increased member contributions reduce the take-home pay of members without a resulting increase in pension benefits, this bill may diminish the total compensation package offered by participating employers in the Systems.

#### ➤ Purchasing Power Retention

No impact.

➤ Preservation of Benefits

Increased funding to the Systems in the form of additional member contributions provides additional funds to pay down the unfunded actuarial accrued liability of the Systems at a faster rate. This in turn will free up additional funds that may be used to increase retirement and/or post-retirement benefits in future years. By setting up this additional funding mechanism it will help preserve the value of benefits from the Systems for several years.

➤ Portability

The additional employee contributions would be fully portable as are the existing member contributions.

➤ Ancillary Benefits

- ◆ No impact.
- ◆ Social Security: No impact.

**Funding Policy Issues**

➤ Actuarial Impacts

As previously noted, the bill will have a positive impact on the funding levels of the Hybrid Plan and the HPRS.

➤ Investment Impacts

- ◆ *Cash Flow*: The bill would have a substantial, positive impact on cash flow.
- ◆ *Asset Allocation*: The bill does not create new investment asset allocation issues.

**Administration Issues**

➤ Implementation Issues

While this bill would have minimal impact on administrative costs of the PERS, it would have an effect on the members of the Systems, since their required contributions would increase substantially.

➤ Administrative Costs

No impact.

➤ Needed Authority

The bill appears to provide appropriate levels of administrative and governance authority to the PERS Board to implement the changes made by the bill.

➤ Integration

No impact.

➤ Employee Communications

Employee communications will be necessary to describe the impact of increased member contributions on employee pay.

➤ Miscellaneous and Drafting Issues

It is our understanding that the State of North Dakota currently pays member contributions via pick-up arrangement pursuant to Internal Revenue Code section 414(h), so that members' salary is not reduced for the payment of required member contributions. This is known as a noncontributory approach for payment of member contributions to a defined benefit plan, which results in member contributions being made to the Systems on a pre-tax basis. In this way, member contributions are designated as employer contributions under federal income tax rules, and therefore are not subject to FICA taxes. Other participating employers in the Systems are permitted to elect to make member contributions using the same noncontributory approach, or may make member contributions by reducing members' salary (known as a contributory approach). Member contributions made from salary reductions are subject to FICA taxes. While the State's noncontributory approach may have been an acceptable method for paying member contributions not subject to FICA taxes at the time it was implemented, more recent IRS guidance on employer pick up of member contributions appears to make it more difficult for employers to pay member contributions in a manner that is not subject to FICA taxes.

The IRS addressed the treatment of pick up contributions for FICA tax purposes in CCA 200714018. In this guidance, the IRS explained that pick up contributions would not be subject to FICA only if paid by the employer as a "salary supplement" in a manner that does not reduce current salary or offset future salary increases. Since this bill would increase the member contribution rate, the participating employers would need to determine whether they can pay for the increased member contributions from their own funds as a salary supplement or would reduce members' current or future salary. Any participating employer that decides to reduce members' salary to pay for the increased level of member contributions must begin paying and reporting FICA taxes on the salary reduction amount. Such decision may create a two-tiered member contribution methodology whereby the current rate of member contributions is not subject to FICA taxes, but the increased member contribution amount (e.g., 2% of pay) is subject to FICA taxes. This two-tiered methodology would add to the administrative burden of participating employers and the PERS.

Representative Bette Grande, Chair  
October 14, 2010  
Page 6

The projections were made using generally accepted actuarial practices and are based on the July 1, 2010 actuarial valuation results, including the asset information, participant data and actuarial assumptions on which that valuation was based. In addition, the active member population has been assumed to remain constant in all future years. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Please call if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Ramirez", is positioned above the typed name.

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

/cz

Attachments

5102394V1/01640.004

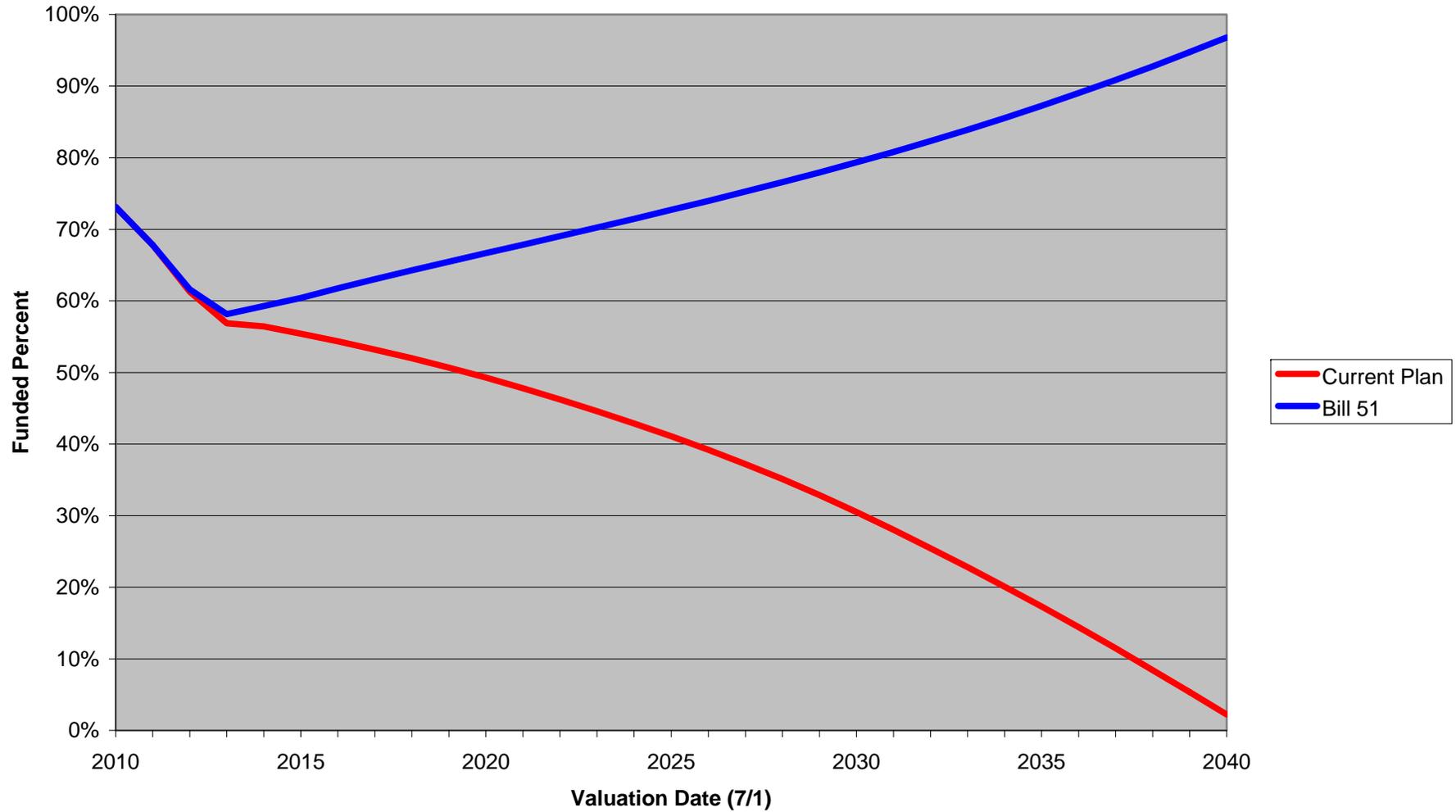
**Exhibit I**  
**Current Contribution Levels**  
**Projection of funding ratios by plan**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on 7/1/2010 Valuation data and assumptions**

	<u>Main</u>	<u>Highway Patrol</u>	<u>Judges</u>
07/01/2010	73%	80%	101%
07/01/2011	68%	75%	94%
07/01/2012	61%	68%	87%
07/01/2013	57%	64%	81%
07/01/2014	56%	65%	82%
07/01/2015	55%	65%	82%
07/01/2016	54%	64%	81%
07/01/2017	53%	64%	81%
07/01/2018	52%	64%	80%
07/01/2019	51%	64%	80%
07/01/2020	49%	63%	79%
07/01/2021	48%	63%	79%
07/01/2022	46%	63%	78%
07/01/2023	45%	63%	78%
07/01/2024	43%	62%	77%
07/01/2025	41%	62%	76%
07/01/2026	39%	61%	75%
07/01/2027	37%	61%	74%
07/01/2028	35%	60%	73%
07/01/2029	33%	60%	72%
07/01/2030	31%	59%	71%
07/01/2031	28%	59%	69%
07/01/2032	25%	58%	68%
07/01/2033	23%	57%	66%
07/01/2034	20%	56%	65%
07/01/2035	17%	55%	63%
07/01/2036	14%	54%	61%
07/01/2037	11%	53%	59%
07/01/2038	8%	52%	56%
07/01/2039	5%	50%	53%
07/01/2040	2%	48%	49%

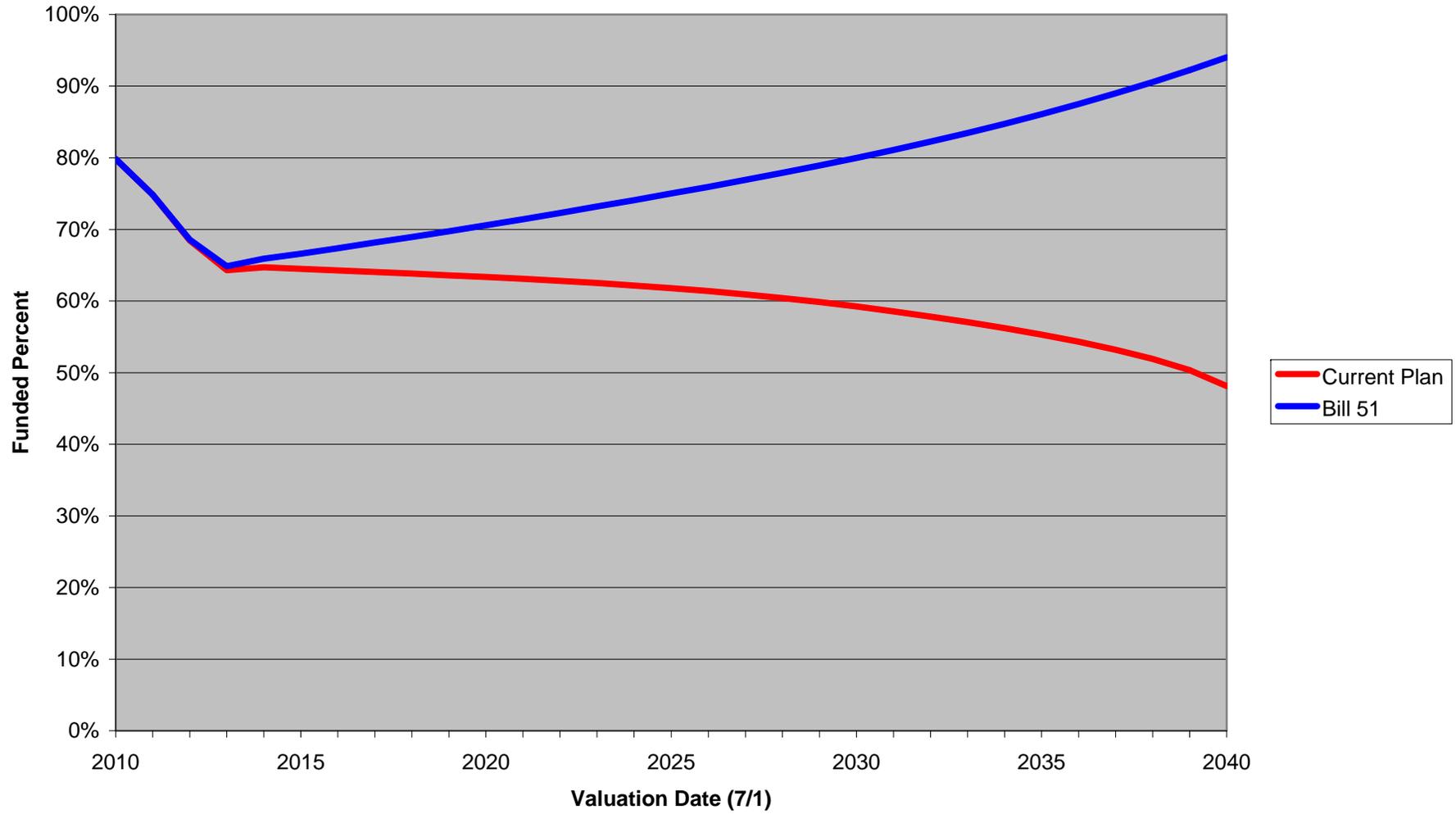
**Exhibit II**  
**Bill 51 – 2% additional member contributions**  
**per year from 1/1/2012 to 1/1/2015**  
**Projection of funding ratios by plan**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on 7/1/2010 Valuation data and assumptions**

	<u>Main</u>	<u>Highway Patrol</u>	<u>Judges</u>
07/01/2010	73%	80%	101%
07/01/2011	68%	75%	94%
07/01/2012	62%	69%	87%
07/01/2013	58%	65%	82%
07/01/2014	59%	66%	84%
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07/01/2016	62%	67%	86%
07/01/2017	63%	68%	87%
07/01/2018	64%	69%	88%
07/01/2019	65%	70%	89%
07/01/2020	67%	71%	89%
07/01/2021	68%	71%	90%
07/01/2022	69%	72%	91%
07/01/2023	70%	73%	92%
07/01/2024	71%	74%	93%
07/01/2025	73%	75%	94%
07/01/2026	74%	76%	95%
07/01/2027	75%	77%	96%
07/01/2028	77%	78%	97%
07/01/2029	78%	79%	98%
07/01/2030	79%	80%	99%
07/01/2031	81%	81%	100%
07/01/2032	82%	82%	102%
07/01/2033	84%	83%	103%
07/01/2034	86%	85%	104%
07/01/2035	87%	86%	105%
07/01/2036	89%	87%	107%
07/01/2037	91%	89%	108%
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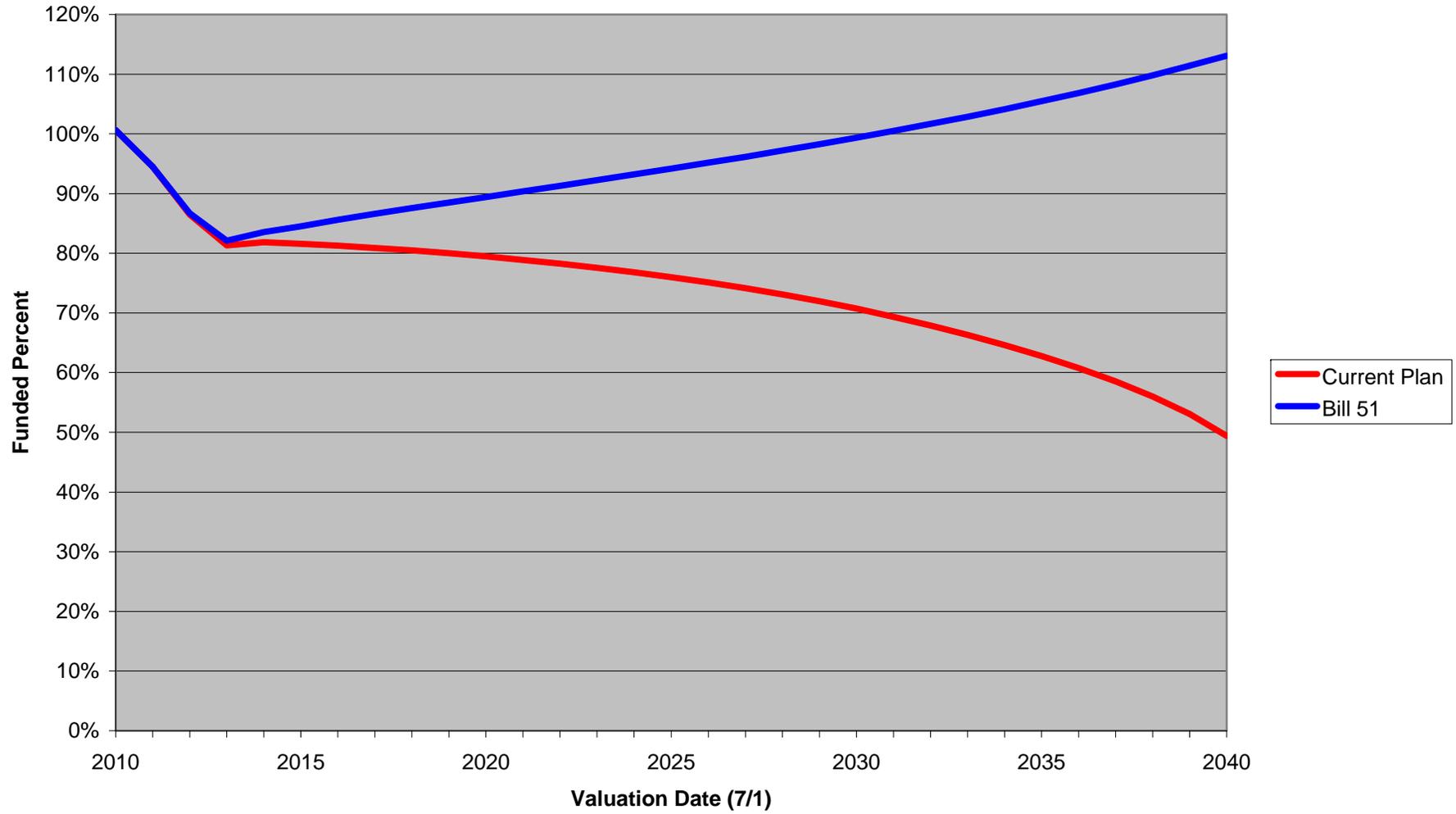
**PERS (Main System)  
Comparison of Funded Ratio  
(Actuarial Value of Assets to Actuarial Accrued Liability)  
Based on July 1, 2010 Data**



**Highway Patrol  
Comparison of Funded Ratio  
(Actuarial Value of Assets to Actuarial Accrued Liability)  
Based on July 1, 2010 Data**



**Judges**  
**Comparison of Funded Ratio**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on July 1, 2010 Data**





THE SEGAL COMPANY  
5670 Greenwood Plaza Boulevard Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 14, 2010

Representative Better Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, ND 58505-0360

Re: **Technical Comments – Bill Draft No. 10052.0100**

Dear Representative Grande:

The following presents our analysis of the proposed changes found in Bill Draft No. 10052.0100:

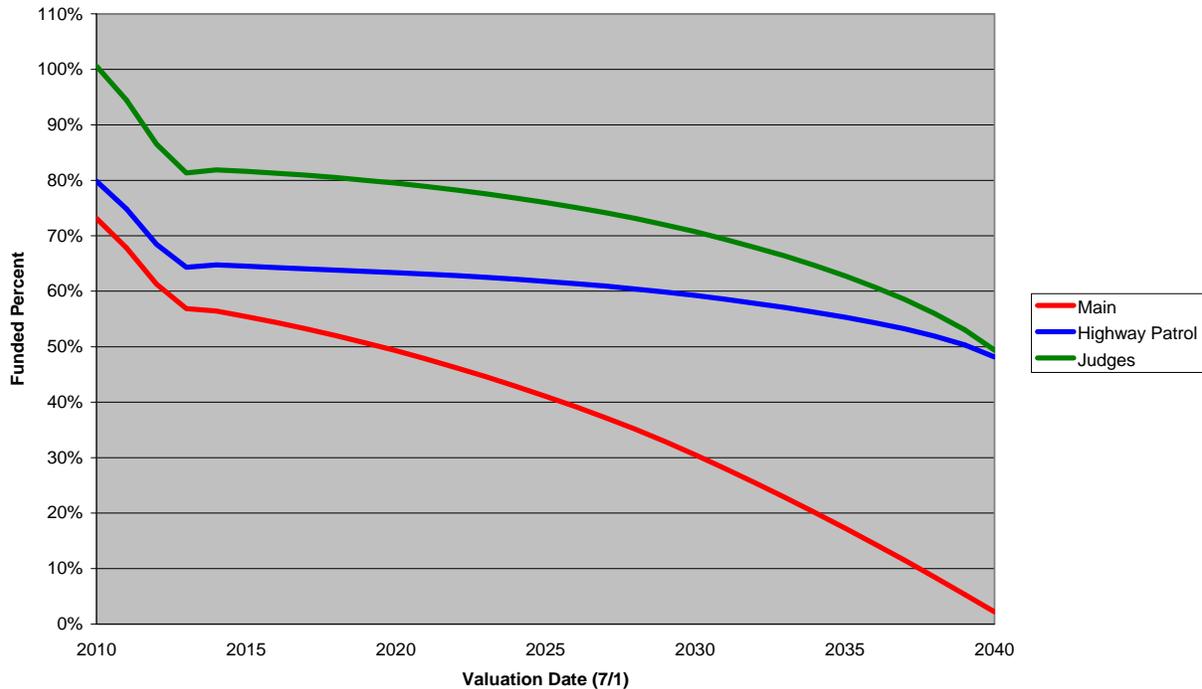
**Systems Affected:** North Dakota Public Employees Retirement System (PERS) Hybrid Plan, Defined Contribution Plan and Highway Patrolmen’s Retirement System (HPRS)

**Summary:** The proposed legislation would increase the employer contribution rate mandated by statute in the HPRS, Hybrid Plan (Main and Judges only) and Defined Contribution Plan by 2% of the member’s monthly salary beginning January 2012, plus an additional 2% increase in employer contribution rates each calendar year thereafter through January 2015. The board sets the rate for the law enforcement plans and has indicated that it would increase those rates in a manner consistent with the statutory rate changes.

In addition, the proposed legislation would increase the member contribution rate mandated by statute only for temporary employees in the Hybrid Plan and Defined Contribution Plan by 2% of the member’s monthly salary beginning January 2012, plus an additional 2% increase in member contribution rates each calendar year thereafter through January 2015. The challenges facing the PERS system are shown in the following graph:



**Projected Funded Ratios**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on July 1, 2010 Data**



**Actuarial Cost Analysis:** This bill would not have an actuarial impact on the liabilities of either the Hybrid Plan and Highway Patrolmen's Retirement System. Exhibits I and II show the current funding level and how the current funding levels would be positively affected by this increased contribution rate

As of July 1, 2010, the Main plan had a funding deficit of 6.64% of covered payroll based upon a 20-year open amortization method. This means the statutory contributions are less than the actuarially required contributions by that amount. This deficit is projected to increase over the next few years as investment losses experienced in 2008 are recognized in the calculation of the Actuarial Value of Assets. Projections of future funded status have indicated that unless this gap is addressed, the Main plan will become insolvent in approximately 2040. Increasing the member contributions by 8% over the period from January 2012 to January 2015 is projected to close this funding deficit. Furthermore, projections indicate that the Main plan would no longer be expected to become insolvent in the next 30 years under the assumed 8.0% investment return scenarios.

As of July 1, 2010, the HPRS plan had a funding deficit of 5.84% of covered payroll based upon a 20-year open amortization method. This means that the amount of statutory contributions is less than the actuarially required contributions by that amount. This deficit is projected to increase over the next few years as investment losses experienced in 2008 are recognized in the calculation of the Actuarial Value of Assets. Projections of future funded status have indicated that unless this gap is addressed, the HPRS plan will not become insolvent in the next 30 years but the funding ratio will drop from 80% to 48%. Increasing the member contributions by 8% over the period from January 2012 to January 2015 is projected to close this funding deficit. Furthermore, projections indicate that the HPRS plan would have an increase in the funded ratio from 80% to 94% over the next 30 years under the assumed 8.0% investment return scenarios.

This bill would also increase the employer contributions for the judges retirement plan. The employer contributions for the law enforcement plans and national guard plans are set by the PERS Board and they have indicated that those contributions will rise as well based upon the legislative action for the other systems.

Exhibits I, II, and the following charts illustrate the results of these projections.

***Technical Comments:*** Our comments on the bill are as follows:

### **General**

The bill would significantly increase funding to the Systems in the form of additional employer contributions and member contributions by temporary employees.

### **Benefits Policy Issues**

➤ **Adequacy of Retirement Benefits**

No impact on the defined benefit plans. The additional contributions to the DC plan will provide additional retirement income.

➤ **Benefits Equity and Group Integrity**

No impact.

➤ **Competitiveness**

No impact.

➤ **Purchasing Power Retention**

No impact.

➤ Preservation of Benefits

Increased funding to the Systems in the form of additional employer and member contributions by temporary employees provides additional funds to pay down the unfunded actuarial accrued liability of the Systems at a faster rate. This in turn will free up additional funds that may be used to increase retirement and/or post-retirement benefits in future years. By setting up this additional funding mechanism it will help preserve the value of benefits from the Systems for several years.

➤ Portability

No impact.

➤ Ancillary Benefits

- ◆ No impact.
- ◆ Social Security: No impact.

**Funding Policy Issues**

➤ Actuarial Impacts

As previously noted, the bill will have an actuarial impact on the Hybrid Plan and the HPRS.

➤ Investment Impacts

- ◆ *Cash Flow*: The bill would have a substantial, positive impact on cash flow.
- ◆ *Asset Allocation*: The bill does not create new investment asset allocation issues.

**Administration Issues**

➤ Implementation Issues

While this bill would have minimal impact on administrative costs of the PERS, it would have an effect on the participating employers and temporary employees, since their required contributions would increase substantially.

➤ Administrative Costs

No impact.

➤ Needed Authority

The bill appears to provide appropriate levels of administrative and governance authority to the PERS Board to implement the changes made by the bill.

➤ Integration

No impact.

➤ Employee Communications

Communications to temporary employees will be necessary to describe the impact of increased member contributions on their pay.

➤ Miscellaneous and Drafting Issues

This bill does not present any drafting issues.

The projections were made using generally accepted actuarial practices and are based on the July 1, 2010 actuarial valuation results, including the asset information, participant data and actuarial assumptions on which that valuation was based. In addition, the active member population has been assumed to remain constant in all future years. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Please call if you have any questions or comments.

Sincerely,



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

/cz

Attachments

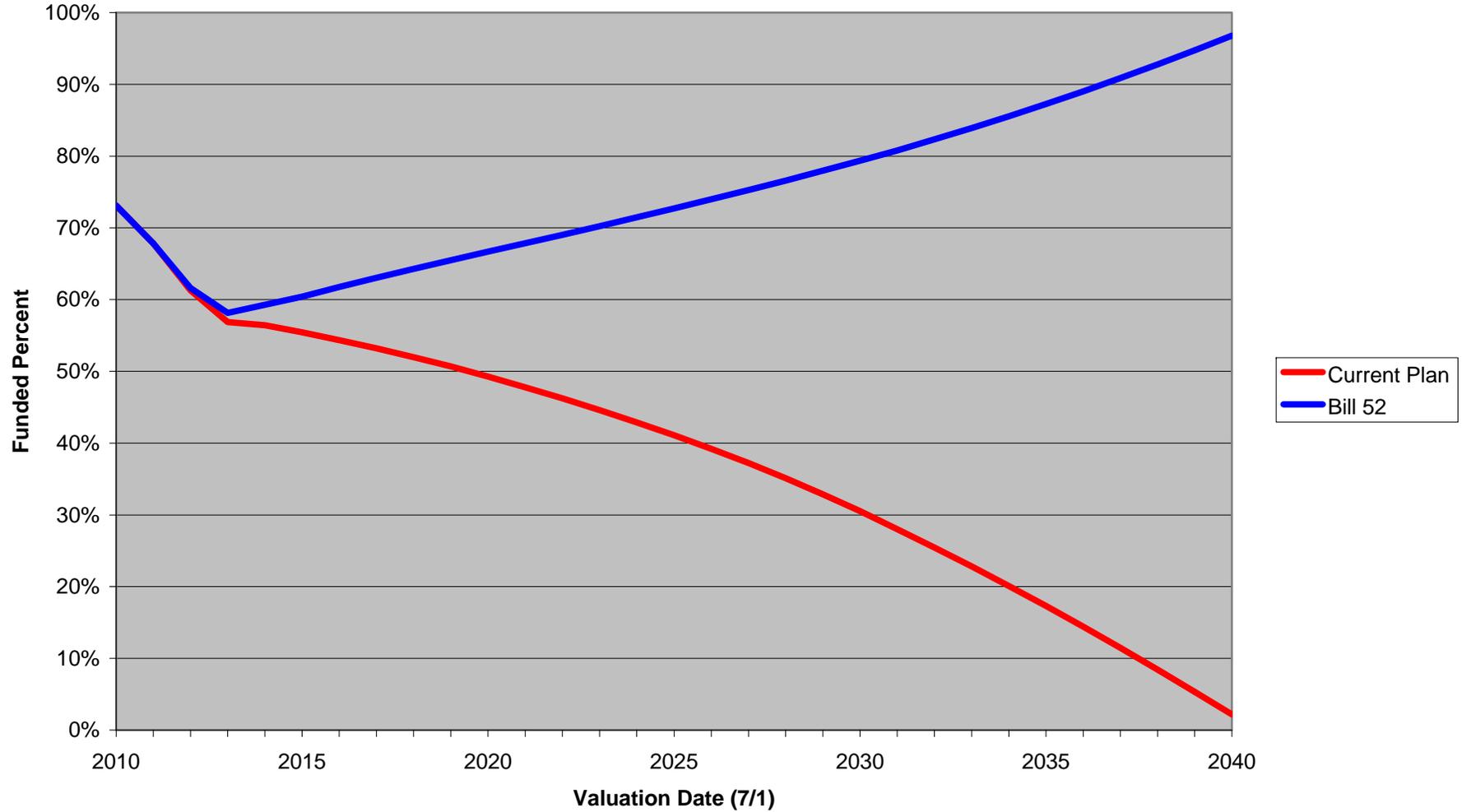
**Exhibit I**  
**Current Contribution Levels**  
**Projection of funding ratios by plan**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on 7/1/2010 Valuation data and assumptions**

	<u>Main</u>	<u>Highway Patrol</u>	<u>Judges</u>
07/01/2010	73%	80%	101%
07/01/2011	68%	75%	94%
07/01/2012	61%	68%	87%
07/01/2013	57%	64%	81%
07/01/2014	56%	65%	82%
07/01/2015	55%	65%	82%
07/01/2016	54%	64%	81%
07/01/2017	53%	64%	81%
07/01/2018	52%	64%	80%
07/01/2019	51%	64%	80%
07/01/2020	49%	63%	79%
07/01/2021	48%	63%	79%
07/01/2022	46%	63%	78%
07/01/2023	45%	63%	78%
07/01/2024	43%	62%	77%
07/01/2025	41%	62%	76%
07/01/2026	39%	61%	75%
07/01/2027	37%	61%	74%
07/01/2028	35%	60%	73%
07/01/2029	33%	60%	72%
07/01/2030	31%	59%	71%
07/01/2031	28%	59%	69%
07/01/2032	25%	58%	68%
07/01/2033	23%	57%	66%
07/01/2034	20%	56%	65%
07/01/2035	17%	55%	63%
07/01/2036	14%	54%	61%
07/01/2037	11%	53%	59%
07/01/2038	8%	52%	56%
07/01/2039	5%	50%	53%
07/01/2040	2%	48%	49%

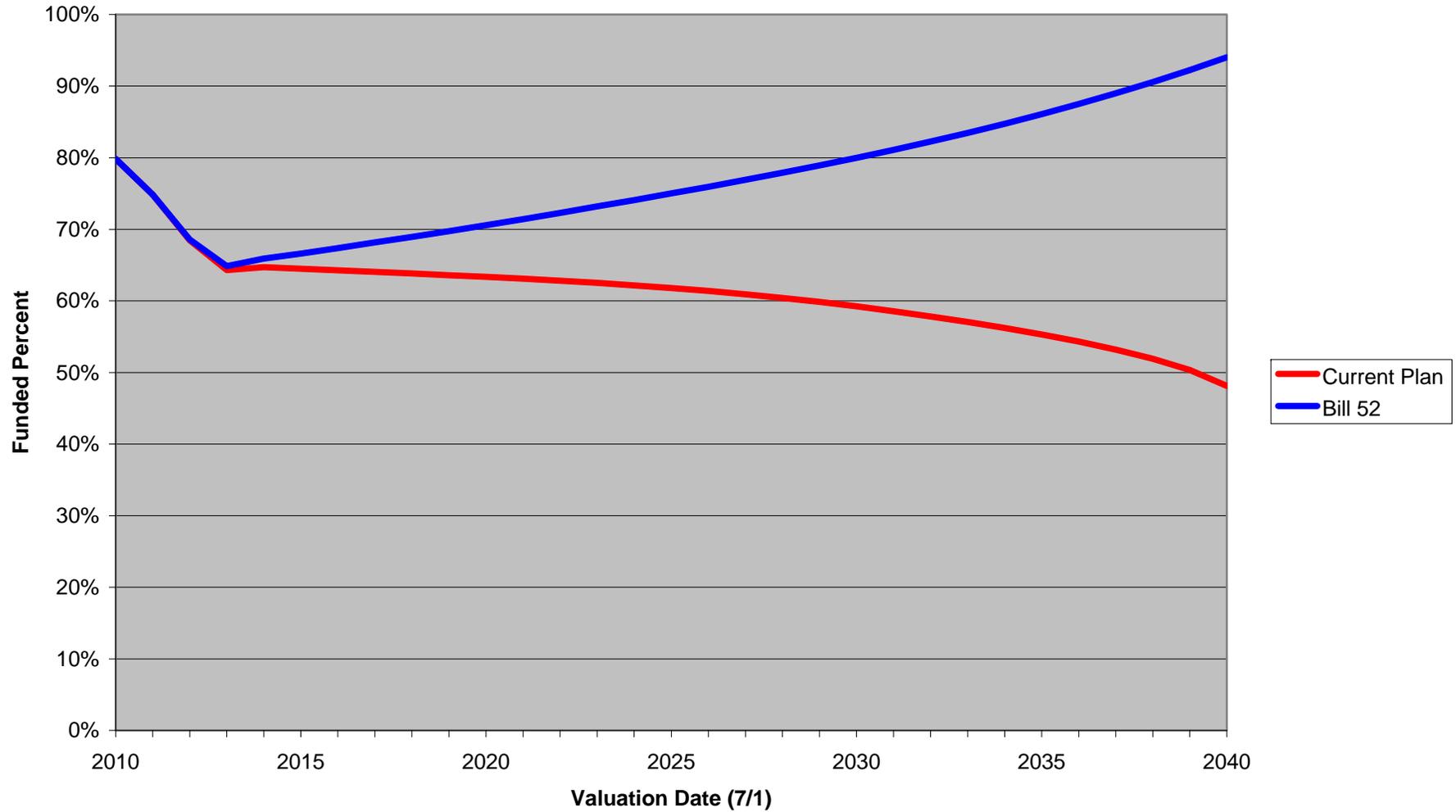
**Exhibit II**  
**Bill 52 – 2% additional employer contributions**  
**per year from 1/1/2012 to 1/1/2015**  
**Projection of funding ratios by plan**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on 7/1/2010 Valuation data and assumptions**

	<u>Main</u>	<u>Highway Patrol</u>	<u>Judges</u>
07/01/2010	73%	80%	101%
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07/01/2019	65%	70%	89%
07/01/2020	67%	71%	89%
07/01/2021	68%	71%	90%
07/01/2022	69%	72%	91%
07/01/2023	70%	73%	92%
07/01/2024	71%	74%	93%
07/01/2025	73%	75%	94%
07/01/2026	74%	76%	95%
07/01/2027	75%	77%	96%
07/01/2028	77%	78%	97%
07/01/2029	78%	79%	98%
07/01/2030	79%	80%	99%
07/01/2031	81%	81%	100%
07/01/2032	82%	82%	102%
07/01/2033	84%	83%	103%
07/01/2034	86%	85%	104%
07/01/2035	87%	86%	105%
07/01/2036	89%	87%	107%
07/01/2037	91%	89%	108%
07/01/2038	93%	91%	110%
07/01/2039	95%	92%	111%
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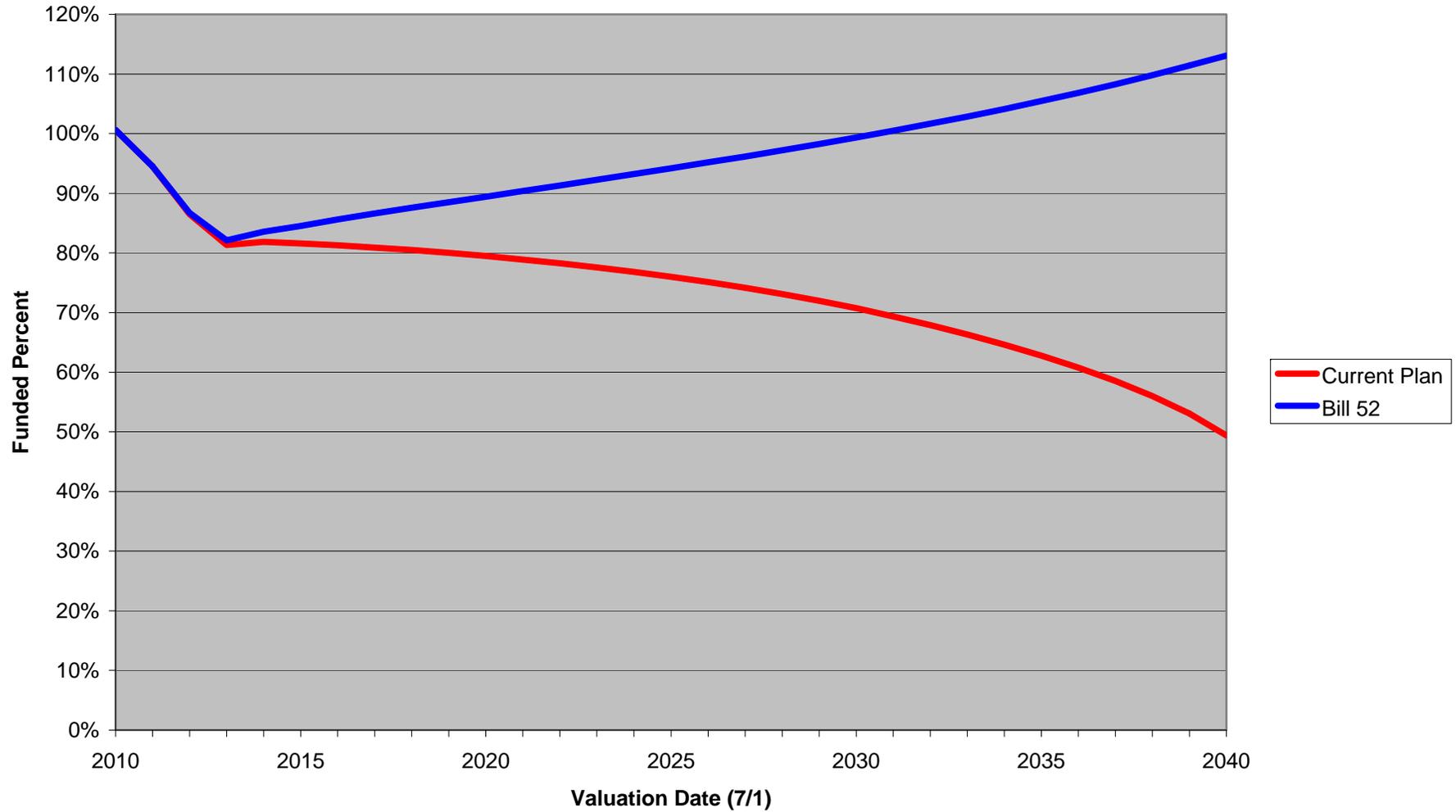
**PERS (Main System)  
Comparison of Funded Ratio  
(Actuarial Value of Assets to Actuarial Accrued Liability)  
Based on July 1, 2010 Data**



**Highway Patrol  
Comparison of Funded Ratio  
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Based on July 1, 2010 Data**



**Judges**  
**Comparison of Funded Ratio**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on July 1, 2010 Data**





THE SEGAL COMPANY  
5670 Greenwood Plaza Blvd., Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 14, 2010

Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, ND 58505-0360

Re: **Technical Comments – Bill Draft No. 10053.0100**

Dear Representative Grande:

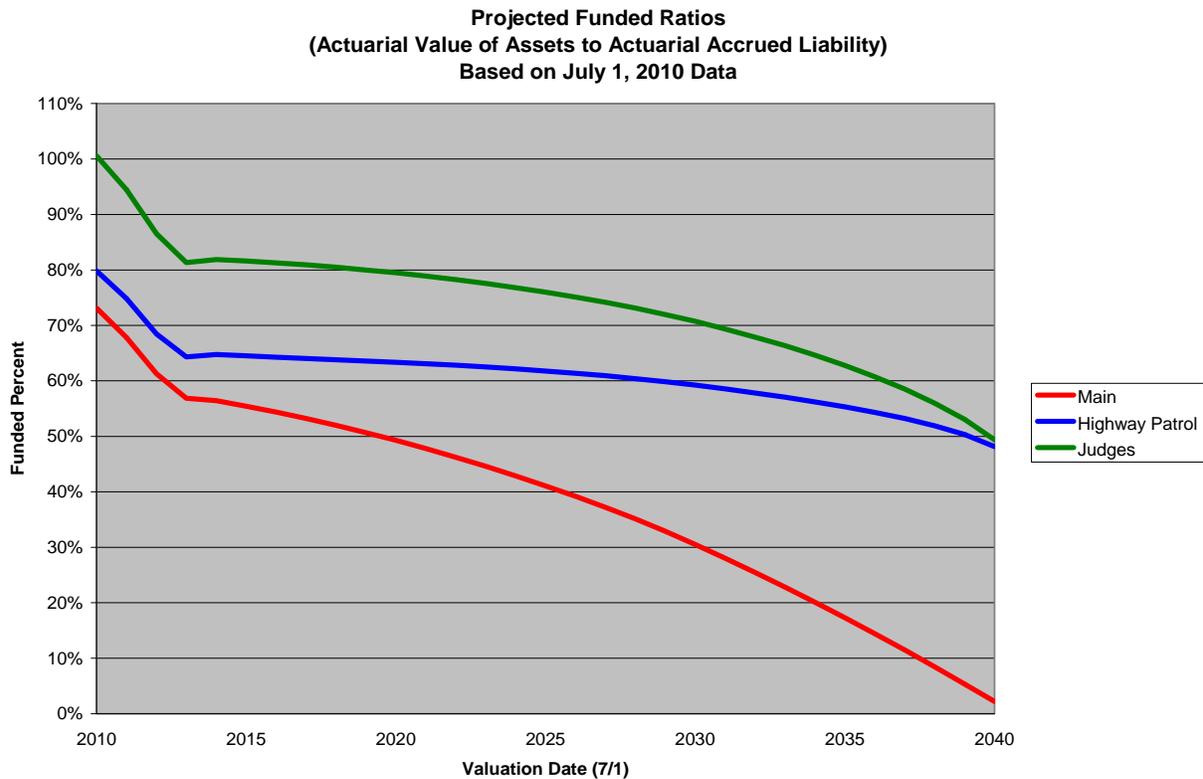
The following presents our analysis of the proposed changes found in Bill Draft No. 10053.0100:

**Systems Affected:** North Dakota Public Employees Retirement System (PERS) Hybrid Plan, Defined Contribution Plan and Highway Patrolmen’s Retirement System (HPRS)

**Summary:** The proposed legislation would increase both the employer contribution rates and the member contribution rates that are mandated by statute in the HPRS, Hybrid Plan (Main and Judges only) and Defined Contribution Plan by 1% of the member’s monthly salary beginning January 2012, plus an additional 1% increase in both employer and member contribution rates each calendar year thereafter through January 2015. The Bill also would increase the member contribution rates for the following two groups:

- Peace officers and correctional officers in the Hybrid Plan employed by political subdivisions, for which the member contribution rate would increase by 0.5% annually, instead of 1%, over the same time period; and
- Temporary employees in the Hybrid Plan and Defined Contribution Plan, for which the member contribution rate would increase by 2% annually, instead of 1%, over the same period.





**Actuarial Cost Analysis:** This bill would not have an actuarial impact on the liabilities of either the Hybrid Plan and Highway Patrolmen’s Retirement System. Exhibits I and II show the current funding level and how the current funding levels would be positively affected by this increased contribution rate.

As of July 1, 2010, the Main plan had a funding deficit of 6.64% of covered payroll based upon a 20-year open amortization method. This means the statutory contributions are less than the actuarially required contributions by that amount. This deficit is projected to increase over the next few years as investment losses experienced in 2008 are recognized in the calculation of the Actuarial Value of Assets. Projections of future funded status have indicated that unless this gap is addressed, the Main plan will become insolvent in approximately 2040. Increasing the member contributions by 8% over the period from January 2012 to January 2015 is projected to close this funding deficit. Furthermore, projections indicate that the Main plan would no longer be expected to become insolvent in the next 30 years under the assumed 8.0% investment return scenarios.

As of July 1, 2010, the HPRS plan had a funding deficit of 5.84% of covered payroll based upon a 20-year open amortization method. This means that the amount of statutory contributions is less than the actuarially required contributions by that amount. This deficit is projected to increase over the next few years as investment losses experienced in 2008 are recognized in the calculation of the Actuarial Value of Assets. Projections of future funded status have indicated that unless this gap is addressed, the HPRS plan will not become insolvent in the next 30 years but the funding ratio will drop from 80% to 48%. Increasing the member contributions by 8% over the period from January 2012 to January 2015 is projected to close this funding deficit. Furthermore, projections indicate that the HPRS plan would have an increase in the funded ratio from 80% to 94% over the next 30 years under the assumed 8.0% investment return scenarios.

This bill would also increase the employer contributions for the judges retirement plan. The employer contributions for the law enforcement plans and national guard plans are set by the PERS Board and they have indicated that those contributions will rise as well based upon the legislative action for the other systems.

Exhibits I, II, and the following charts illustrate the results of these projections.

***Technical Comments:*** Our comments on the bill are as follows:

### **General**

The bill would significantly increase funding to the Systems in the form of additional employer and member contributions.

### **Benefits Policy Issues**

#### ➤ Adequacy of Retirement Benefits

No impact on the defined benefit plans. The additional contributions to the DC plan will provide additional retirement income.

#### ➤ Benefits Equity and Group Integrity

To the extent increased member contributions reduce the take-home pay of members, this bill may create salary inequity between peace officers/correctional officers employed by political subdivisions (0.5% annual increase) and other employees of political subdivisions (1% annual increase). Note that the Bill does not increase the contribution requirement for peace officers/correctional officers employed by the State Bureau of Criminal Investigation nor does it increase it for National Guard security officers or firefighters.

#### ➤ Competitiveness

To the extent increased member contributions reduce the take-home pay of members without a resulting increase in pension benefits, this bill may diminish the total compensation package offered by participating employers in the Systems.

➤ Purchasing Power Retention

No impact.

➤ Preservation of Benefits

Increased funding to the Systems in the form of additional employer and member contributions provides additional funds to pay down the unfunded actuarial accrued liability of the Systems at a faster rate. This in turn will free up additional funds that may be used to increase retirement and/or post-retirement benefits in future years. By setting up this additional funding mechanism it will help preserve the value of benefits from the Systems for several years.

➤ Portability

No impact.

➤ Ancillary Benefits

- ◆ No impact.
- ◆ Social Security: No impact.

**Funding Policy Issues**

➤ Actuarial Impacts

As previously noted, the bill will have an actuarial impact on the Hybrid Plan and the HPRS.

➤ Investment Impacts

- ◆ *Cash Flow*: The bill would have a substantial, positive impact on cash flow.
- ◆ *Asset Allocation*: The bill does not create new investment asset allocation issues.

**Administration Issues**

➤ Implementation Issues

While this bill would have minimal impact on administrative costs of the PERS, it would have an effect on the members and participating employers, since their required contributions would increase substantially.

➤ Administrative Costs

No impact.

➤ Needed Authority

The bill appears to provide appropriate levels of administrative and governance authority to the PERS Board to implement the changes made by the bill.

➤ Integration

No impact.

➤ Employee Communications

Employee communications will be necessary to describe the impact of increased member contributions on employee pay.

➤ Miscellaneous and Drafting Issues

It is our understanding that the State of North Dakota currently pays member contributions via pick-up arrangement pursuant to Internal Revenue Code section 414(h), so that members' salary is not reduced for the payment of required member contributions. This is known as a noncontributory approach for payment of member contributions to a defined benefit plan, which results in member contributions being made to the Systems on a pre-tax basis. In this way, member contributions are designated as employer contributions under federal income tax rules, and therefore are not subject to FICA taxes. Other participating employers in the Systems are permitted to elect to make member contributions using the same noncontributory approach, or may make member contributions by reducing members' salary (known as a contributory approach). Member contributions made from salary reductions are subject to FICA taxes. While the State's noncontributory approach may have been an acceptable method for paying member contributions not subject to FICA taxes at the time it was implemented, more recent IRS guidance on employer pick up of member contributions appears to make it more difficult for employers to pay member contributions in a manner than is not subject to FICA taxes.

The IRS addressed the treatment of pick up contributions for FICA tax purposes in CCA 200714018. In this guidance, the IRS explained that pick up contributions would not be subject to FICA only if paid by the employer as a "salary supplement" in a manner that does not reduce current salary or offset future salary increases. Since this bill would increase the member contribution rate, participating employers would need to determine whether they can pay for the increased member contributions from their own funds as a salary supplement or would reduce members' current or future salary, while also paying an increased employer contribution rate. Any participating employer that decides to reduce members' salary to pay for the increased level of member contributions must begin paying and reporting FICA taxes on the salary reduction amount. Such decision may create a two-tiered member contribution methodology whereby the current rate of member contributions is not subject to FICA taxes, but the increased member contribution amount (e.g., 2% of pay) is subject to FICA taxes. This two-tiered methodology would add to the administrative burden of participating employers and the PERS.

The projections were made using generally accepted actuarial practices and are based on the July 1, 2010 actuarial valuation results, including the asset information, participant data and actuarial assumptions on which that valuation was based. In addition, the active member population has been assumed to remain constant in all future years. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Please call if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brad Ramirez", is positioned above the typed name.

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

/cz

Attachments

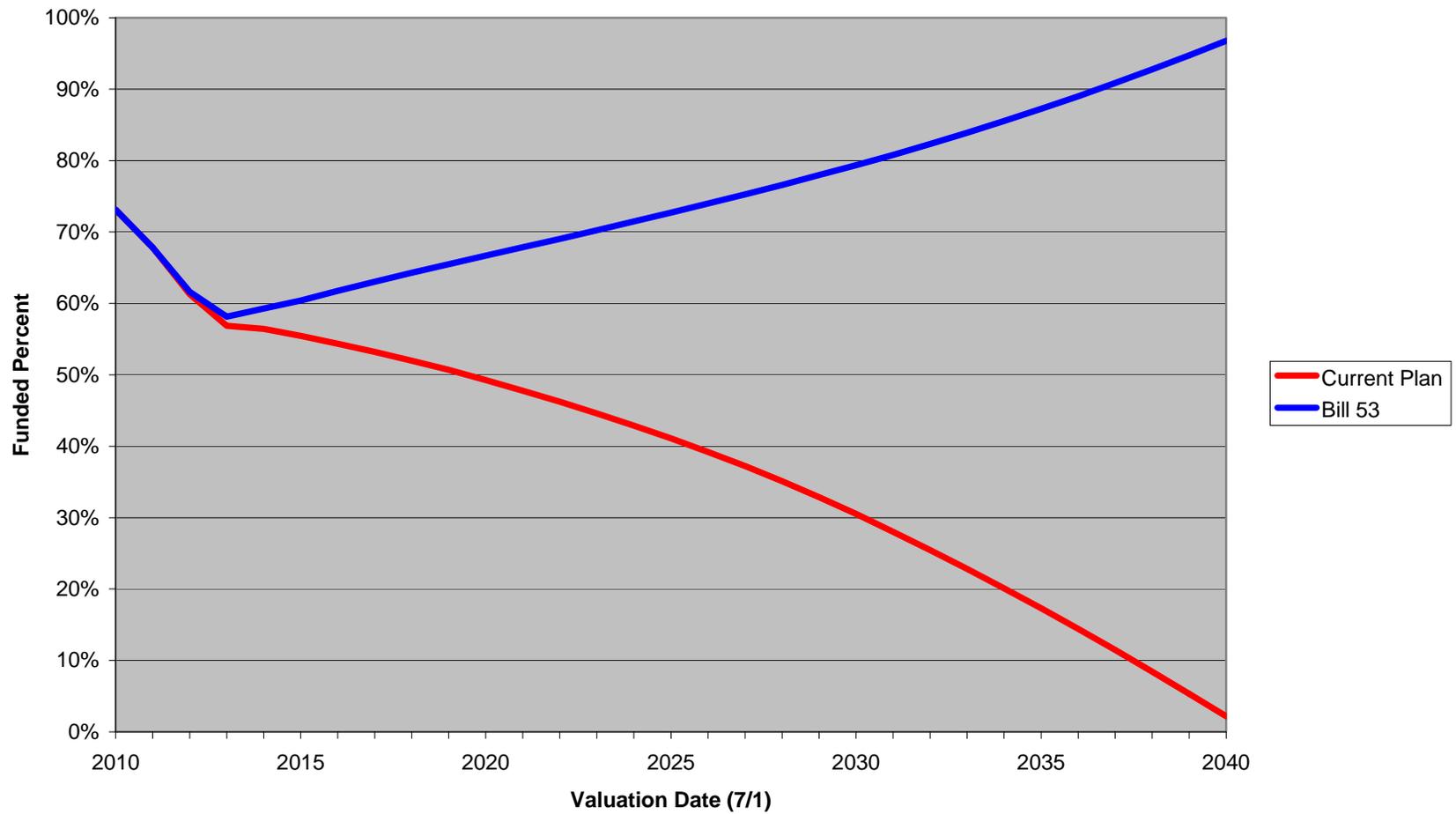
**Exhibit I**  
**Current Contribution Levels**  
**Projection of funding ratios by plan**  
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**Based on 7/1/2010 Valuation data and assumptions**

	<u>Main</u>	<u>Highway Patrol</u>	<u>Judges</u>
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07/01/2018	52%	64%	80%
07/01/2019	51%	64%	80%
07/01/2020	49%	63%	79%
07/01/2021	48%	63%	79%
07/01/2022	46%	63%	78%
07/01/2023	45%	63%	78%
07/01/2024	43%	62%	77%
07/01/2025	41%	62%	76%
07/01/2026	39%	61%	75%
07/01/2027	37%	61%	74%
07/01/2028	35%	60%	73%
07/01/2029	33%	60%	72%
07/01/2030	31%	59%	71%
07/01/2031	28%	59%	69%
07/01/2032	25%	58%	68%
07/01/2033	23%	57%	66%
07/01/2034	20%	56%	65%
07/01/2035	17%	55%	63%
07/01/2036	14%	54%	61%
07/01/2037	11%	53%	59%
07/01/2038	8%	52%	56%
07/01/2039	5%	50%	53%
07/01/2040	2%	48%	49%

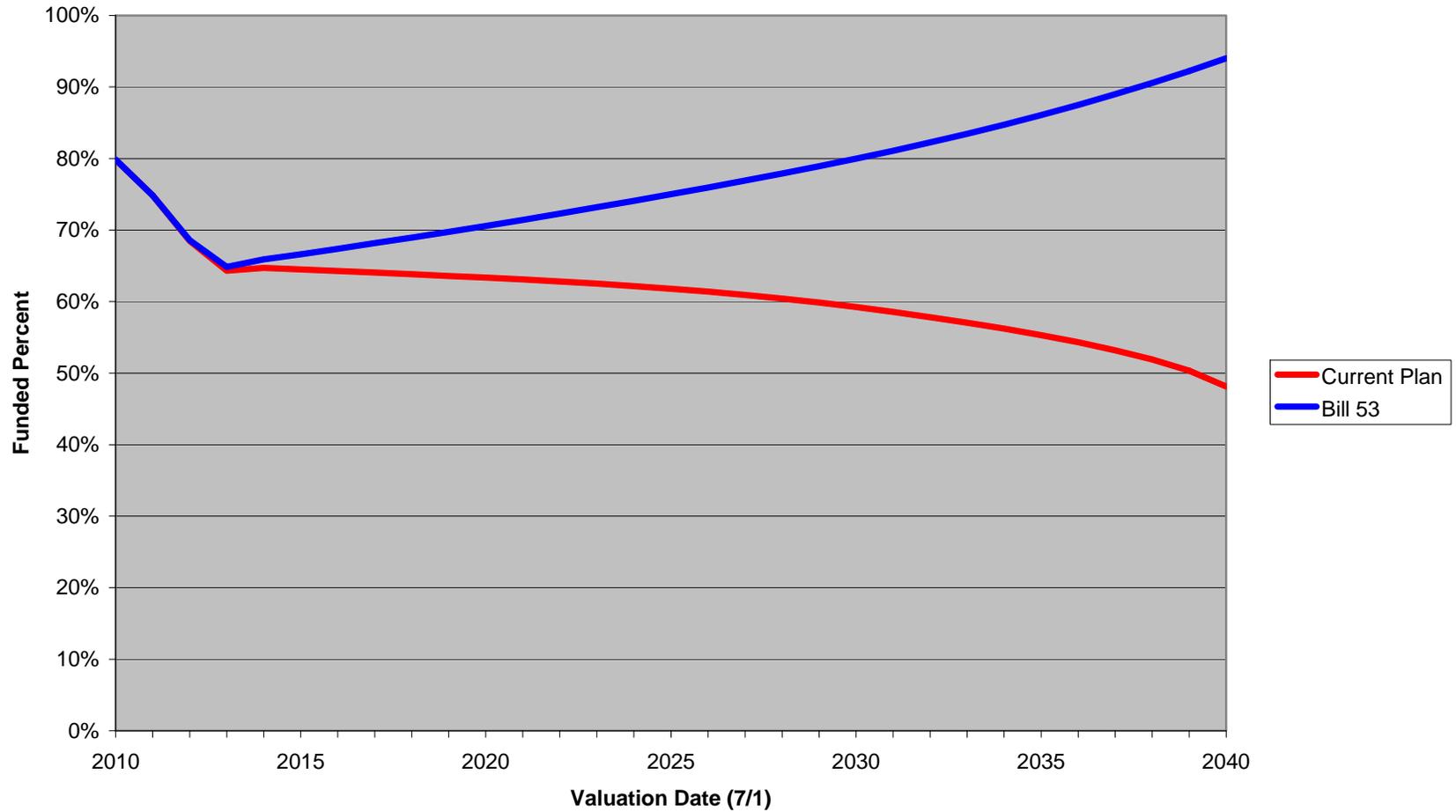
**Exhibit II**  
**Bill 53 – 1% additional member & employer contributions**  
**per year from 1/1/2012 to 1/1/2015**  
**Projection of funding ratios by plan**  
**(Actuarial Value of Assets to Actuarial Accrued Liability)**  
**Based on 7/1/2010 Valuation data and assumptions**

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07/01/2017	63%	68%	87%
07/01/2018	64%	69%	88%
07/01/2019	65%	70%	89%
07/01/2020	67%	71%	89%
07/01/2021	68%	71%	90%
07/01/2022	69%	72%	91%
07/01/2023	70%	73%	92%
07/01/2024	71%	74%	93%
07/01/2025	73%	75%	94%
07/01/2026	74%	76%	95%
07/01/2027	75%	77%	96%
07/01/2028	77%	78%	97%
07/01/2029	78%	79%	98%
07/01/2030	79%	80%	99%
07/01/2031	81%	81%	100%
07/01/2032	82%	82%	102%
07/01/2033	84%	83%	103%
07/01/2034	86%	85%	104%
07/01/2035	87%	86%	105%
07/01/2036	89%	87%	107%
07/01/2037	91%	89%	108%
07/01/2038	93%	91%	110%
07/01/2039	95%	92%	111%
07/01/2040	97%	94%	113%

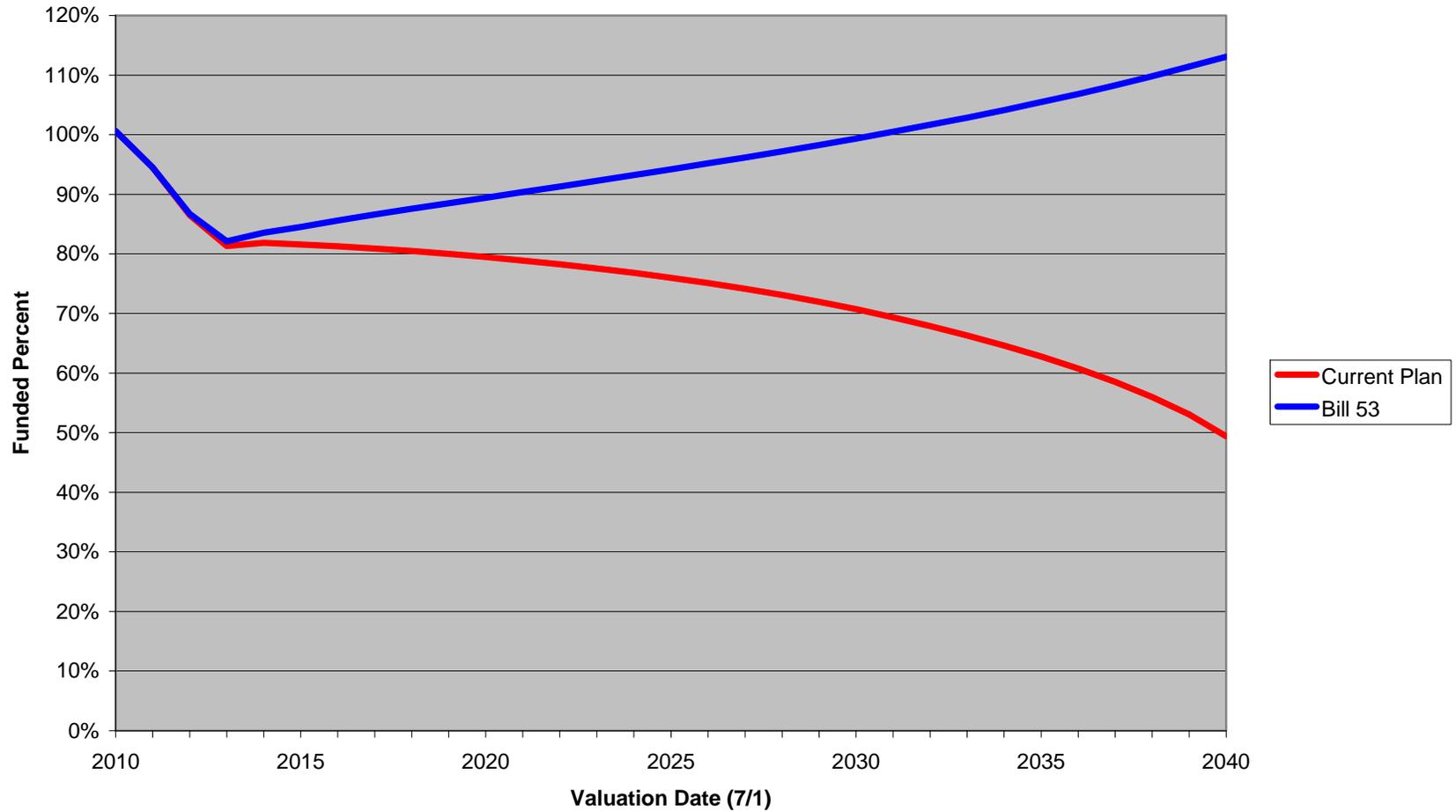
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THE SEGAL COMPANY  
5670 Greenwood Plaza Boulevard Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 13, 2010

Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, ND 58505-0360

Re: **Technical Comments – Bill Draft No. 10059.0100**

Dear Representative Grande:

The following presents our analysis of the proposed changes found in Bill Draft No. 10059.0100:

**Systems Affected:** North Dakota Public Employees Retirement System (PERS) Hybrid Plan, Defined Contribution Plan, Highway Patrolmen’s Retirement System (HPRS) and Retiree Health Benefit Fund

**Summary:** The proposed legislation would make the following important changes:

- Clarifies that employees of the university system who are members of the PERS, including members of the Defined Contribution Plan, and are entitled to participate in the alternate retirement programs, may make a special annuity purchase in such alternate retirement program. (Section 1)
- Eliminates the 60-month certain option as a form of payment for surviving spouses in the HPRS. Under current law, surviving spouses in HPRS get to elect either this benefit or a refund of member contributions or monthly payments of 50% of the normal retirement benefit for the surviving spouses lifetime. (Section 2)
- Calculates benefits for members of the HPRS who have membership in more than one retirement system using the highest salary received for 36 months, regardless of whether such months are consecutive, within the last 120 months of employment. This change was previously approved for the calculation of HPRS retirement benefits (Section 4)



- Changes the pool of candidates for a board member that is elected by retirees to exclude those individuals who are eligible for a deferred vested benefit but not yet retired. (Section 5)
- Changes the normal retirement date for peace officers and correctional officers in the Hybrid Plan to age 55 and three years of employment in such officer positions, regardless of whether employment in such officer positions immediately precedes retirement. Currently the normal retirement date is age 55 and currently working in the retirement plan for the last three years.
- For purposes of payment of a member's account balance at death, clarifies that any surviving beneficiary who dies before receiving a distribution of such account balance is treated as predeceasing the member. (Section 6)
- Permits conversion of sick leave to retirement credit under the Hybrid Plan at any time, rather than within 60 days of termination of employment only. (Section 7)
- Clarifies that a surviving spouse of a retiree may continue to participate in the uniform group insurance program by paying the required premium. (Section 9)
- Updates federal compliance provisions of the Hybrid Plan and HPRS. (Sections 3 and 8)
- Updates the employer contribution pick up process. (Section 10)

**Actuarial Cost Analysis:** This bill would not have a significant actuarial cost impact on the Hybrid Plan or the Highway Patrolmen's Retirement System.

**Technical Comments:** Our comments on the bill are as follows:

### **General**

The bill generally clarifies existing statutory provisions to more accurately reflect actual operations of the Systems or to make the terms of various plans under the Systems more consistent with each other.

### **Benefits Policy Issues**

#### ➤ Adequacy of Retirement Benefits

Providing peace officers and correctional officers with unreduced normal retirement benefits even where retiring from other positions enhances retirement benefits for this limited group of members.

➤ Benefits Equity and Group Integrity

The bill enhances benefit equity between the HPRS and the Hybrid Plan by eliminating the 60-month certain option as a form of payment for surviving spouses in the HPRS and by no longer requiring the highest 36 months of salary to be consecutive for benefits purposes in the HPRS. Similar changes have already been made in the Hybrid Plan.

The proposed defined contribution plan change in Section 1 provides improved equity between the defined contribution plan and the Hybrid plan. The Hybrid plan currently allows members who leave covered employment with PERS and move to covered employment in Higher Education with benefits provided by TIAA/CREF the opportunity to elect to transfer their fund from PERS to TIAA/CREF. When the defined contribution plan was enacted, it did not include this provision. This bill would add that option to the defined contribution plan.

Competitiveness

No impact.

➤ Purchasing Power Retention

No impact.

➤ Preservation of Benefits

By no longer requiring peace officers and correctional officers in the Hybrid Plan to complete the required three years of employment in such officer positions immediately before retirement, this bill preserves the level of accrued benefits for this limited group of members.

➤ Portability

No impact.

➤ Ancillary Benefits

- ◆ No impact.
- ◆ Social Security: No impact.

**Funding Policy Issues**

➤ Actuarial Impacts

As previously noted, this bill would not have a significant actuarial impact on the Hybrid Plan and the Highway Patrolmen's Retirement System.

➤ Investment Impacts

- ◆ *Cash Flow*: No impact.
- ◆ *Asset Allocation*: The bill does not create new investment asset allocation issues.

**Administration Issues**

➤ Implementation Issues

This bill does not present any significant implementation issues for the PERS.

➤ Administrative Costs

The bill will have only a minimal impact on the administrative resources of the PERS. If the 60-month certain option for surviving spouses is eliminated, the HPRS will no longer be required to offer a direct rollover for each of the 60 payments made under this form of benefit. Calculating the 36 highest non-consecutive final average salary for HPRS members will require some additional programming and review time.

➤ Needed Authority

The bill appears to provide appropriate levels of administrative and governance authority to the PERS Board to implement the changes made by the bill.

➤ Integration

No impact.

➤ Employee Communications

The PERS may need to update employee communications material to accurately reflect the following proposed changes in the bill:

- ◆ Eliminating the 60-month certain option as a form of payment for surviving spouses in the HPRS;
- ◆ Calculating benefits for members of the HPRS who have membership in more than one retirement system by using the highest salary received for 36 months, regardless of whether such months are consecutive; and
- ◆ Allowing peace officers and correctional officers in the Hybrid Plan to reach normal retirement date at age 55 by completing the three years of employment in such officer positions, regardless of whether employment in such officer positions immediately precedes retirement.

- ◆ Permitting conversion of sick leave to retirement credit under the Hybrid Plan at any time, rather than within 60 days of termination of employment only.

➤ Miscellaneous and Drafting Issues

This bill may need to be amended to include changes to the federal compliance provisions of the HPRS that have been requested by the IRS as part of the HPRS' favorable determination letter application.

The cost of the plan changes indicated in Bill 10059.0100 were made using generally accepted actuarial practices and are based on demographic data as of July 1, 2010. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

Please call if you have any questions or comments.

Sincerely,



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



THE SEGAL COMPANY  
5670 Greenwood Plaza Blvd., Suite 425 Greenwood Village, CO 80111-2499  
T 303.714.9900 F 303.714.9990 www.segalco.com

October 14, 2010

Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, ND 58505-0360

Re: **Technical Comments – Bill Draft No. 10080.0200**

Dear Representative Grande:

The following presents our analysis of the proposed changes found in Bill Draft No. 10080.0200:

**Systems Affected:** North Dakota Public Employees Retirement System (PERS) and Highway Patrolmen’s Retirement System (HPRS). As requested by the System, our analysis is limited to the effect on the Main System of PERS.

**Summary:** The proposed legislation would close Main employee participation in the PERS Hybrid Plan, which is a defined benefit (DB) plan, to new State employees first hired after July 31, 2011. New Main State employees would participate in the Defined Contribution (DC) Plan.

- New employees of political subdivisions would still be eligible to participate in the Hybrid Plan. Currently, political subdivisions represent approximately 48% of the active population of the Main System.
- Temporary State employees hired after July 31, 2011 would only be able to elect to participate in the Defined Contribution Plan.
- Contribution rates for new State employees in the Defined Contribution Plan would be the same contribution rate as statutorily required under the defined benefit plans applicable to the appropriate employee group.



***Actuarial Cost and Technical Analysis:***

The proposed legislation would affect the cost of PERS in a number of ways.

- If the Statutory Contribution Rate were to be adjusted to achieve full funding, the increase would be higher under the proposed legislation than it would be under the current plan. Based on the most recent available data, the rate to achieve full funding would increase from 17.41% to 23.91% for the Main System (State only).
- If the Statutory Contribution Rate is not adjusted, the projected date that the Main System's assets that are allocated to State employees will be exhausted is projected to be earlier under the proposed legislation (2031) than the current Plan (2037).
- When the Plan's assets are exhausted the Plan's liabilities would still have to be met. Under Bill 80, the employer contributions needed to pay ongoing benefits are projected to rise to over 26% of payroll in the year that the funds are depleted. Under the current Plan for the Main System, the employer contributions needed to pay ongoing benefits are projected to rise to 23% of payroll in the year that the funds are depleted.
- The proposed DC Plan does not provide the same level of spouse or disability benefits as the current Plan. Also, the proposed DC Plan does not contain the Portability Enhancement Provision (PEP) that provides an incentive for supplemental retirement savings under the Hybrid Plan.
- If the proposed legislation were adopted, then there will be further challenges to the current method of providing Ad Hoc adjustments to retiree benefits since contributions to the Hybrid plan will be reduced.
- Bill 80 shifts the investment risk from the employer to the individual members. Investment education will be needed to help the member with this added responsibility.
- The proposed DC Plan is not sufficient to provide the same level of retirement security that current Hybrid Plan members receive. An increase to the DC Plan contribution to provide comparable retirement security would result in a large increase in the cost of the proposed legislation.

The current bill draft would only close PERS to future state employees. Since 48% of the active population is employed by political subdivisions, the DB Plan could be modeled as if it were an open plan. That is, if the bill were to pass, the Plan would continue to add new entrants, but at a slower rate than under the current Plan. However, this would create an equity issue involving the contribution rate.

Since the Plan is funded with contributions that are a percent of active payroll, the political subdivisions, by continuing to add active members, would assume a larger and larger share of the burden of paying off the Unfunded Actuarial Accrued Liability (UAAL). Although the bill does not prevent the political subdivisions from adding new entrants, there is no reason to assume they

would continue to do so if it meant they would be responsible for more than their fair share of the cost of the Plan. These subdivisions could choose to stop adding new entrants and could withdraw from PERS at any time, in which case they would only be responsible for paying off the UAAL for their own participants.

The only practical way the Plan could continue as an open plan would be if the Main System were divided so that state employees made up a single cost group. This would mean the State would be responsible for paying off the UAAL associated with State employees. We have assumed that if the bill passed State employees would make up a separate cost group as of July 1, 2011. By doing this we can accurately reflect the State's funding obligation, which is independent from what the political subdivisions choose to do.

### **Impact on the Systems' Assets**

If the Main System were closed to new state employees the state employees' segment of the assets would be exhausted in 2031 if the current statutory contribution rate were left unchanged. Charts 1 and 2, attached, illustrate this. Chart 1 shows the projected market values of assets allocated to state employees in the Main System under the current Plan and Bill 80. Chart 2 shows the projected funded ratios (based on the actuarial value of assets) under each scenario.

Closing the Plan to new members reduces the Plan's future liabilities but it also removes an important funding source. These do not counterbalance each other. Contributions to the DB Plan are reduced as soon as new members and their associated contributions are diverted to the DC Plan, but benefit payments from the DB Plan are not affected for many years. It will become increasingly difficult to make up the funding shortfall as the payroll of active members decreases.

Another way to look at this is as follows:

- Under Bill 80, the actuarial present value of all future benefits for Main System state employees, determined as of July 1, 2010, is \$2,779 million. This includes the actuarial present value of future benefits for current annuitants, current active members, current inactive, vested members, and all future members assuming the active population remains constant.
- The actuarial present value of future member contributions is \$524 million, and the actuarial present value of future employer contributions is \$540 million.
- The estimated market value of assets at July 1, 2010 is \$1,001 million.
- Therefore, there is a net liability shortfall of \$714 million without a funding source.

This is illustrated on the attached Chart 3. While the total value of all benefits to be earned in the future is smaller under the bill, there are two important points to note. First of all, under Bill 80 the DB shortfall is nearly as big as it is under the current Plan, but the DB payroll is declining under Bill 80, so it may be more difficult to make up the shortfall.

Please note that the estimates in these charts are extremely sensitive to the projected valuation results and the actuarial assumptions used.

### **Impact on Contribution Requirements**

One way to measure the effect of the bill on the cost of the Plan is to calculate the contribution rate to fully fund the Plan so that assets will be available to pay all benefits. Note that this rate is different than the actual contribution rate, which is set in statute and does not reflect the true cost of the Plan. Relative to the current defined benefit plans, the proposed bill would increase the immediate cost of the plans. This is primarily due to the fact that the Unfunded Actuarial Accrued Liability (UAAL) could no longer be amortized over the future payroll that is expected to grow by 4.5% per year.

The following table shows the estimated total contribution requirements as of July 1, 2011. These estimates are based on the July 1, 2010 actuarial valuation results, including the asset information, participant data and actuarial assumptions on which that valuation was based. The “Current Plan” uses amortization of the UAAL over 20 years as a level percent of payroll, which is assumed to increase 4.5% per annum. The “Closed Plan” amortizes the UAAL as a percent of projected payroll of the group that is closed as of July 31, 2011.

#### **Estimated Total\* Contribution Requirements to Achieve Full Funding**

	Current Plan		Closed Plan	
	Amount (000's)	Percentage of Payroll	Amount (000's)	Percentage of Payroll
Main System (State Only)	\$80,252	17.41%	\$110,214	23.91%

\* *Employer plus member contributions*

Note that the costs of the defined benefit plans are projected to increase in the future for the following reasons:

- Closing the Defined Benefit Plan will ultimately require changes in asset allocation that will likely produce lower investment returns. This will increase the UAAL and the actuarial contribution requirement. Note that we have not taken any asset reallocation into account in this analysis and have instead used the same long-term expected return for the projection period.
- For the Main System, the statutory contribution rate is currently less than the actuarially determined contribution rate, which leads to actuarial losses each year.

Since the State has a number of options in adjusting the funding policy to meet the obligation, we have assembled a number of charts to illustrate various options.

Chart 4 shows the contribution requirements if the current statute was not amended. The current statutory requirement is all that would be paid until the System's assets were exhausted, at which time the State would be required to contribute enough to make benefit payments.

Chart 5 shows the projected contributions if the statutory contribution rate were increased enough to achieve full funding in 20 years for the current Plan. The current actuarially determined rate is based on a 20 year amortization of the UAAL.

Chart 6 is the same as Chart 5 with the amortization period increased to 30 years for the current Plan.

### **Impact on Reporting**

Another effect of the bill worth noting deals with the requirements of the Governmental Accounting Standards Board. GASB requires the determination of an Annual Required Contribution (ARC). PERS is required to disclose in a supplemental schedule to its financial statement the actual amount of employer contributions received and what percentage of the ARC this represents.

GASB 25 sets certain parameters to be used in calculating the ARC. Generally, the ARC must include the normal cost (reduced for the share paid by member contributions) and an additional charge to amortize the unfunded actuarial accrued liability (UAAL). The amortization period may not exceed 30 years. A plan open to new members may determine the amortization charge as a level percentage of payroll, which is assumed to increase. PERS currently uses an amortization period of 20 years with assumed payroll increases of 4.5% per annum. When a plan is closed to future members, though, GASB 25 requires that the amortization charge be computed as either a flat dollar amount or a decreasing amount in line with expected decreases in covered payroll. The following table shows the employers' ARC for the 2011-12 fiscal year using amortization charges that increase at 4.5% each year and level dollar amortization.

<u>Plan</u>	<u>ARC Rate* (4.5% Payroll Growth)</u>	<u>ARC Rate* (Level Dollar)</u>	<u>Statutory Employer Contribution Rate</u>
Main System (State Only)	12.87%	16.01%	4.12%

\* Expressed as a percentage of covered payroll.

**Technical Comments:** Our comments on the bill are as follows:

### **General**

The bill essentially closes the State's defined benefit plans to new entrants employed by the State, which means the bill would have a major impact in the following areas, as described in more detail in this letter:

- Similarly situated employees would have different levels and forms of retirement benefits;
- The proposed changes would have a significant impact on the funding status of the defined benefits plans; and
- The role of the affected Systems in administering retirement benefits for State employees would shift dramatically over time.

### **Benefits Policy Issues**

#### **➤ Adequacy of Retirement Benefits**

- ◆ *Replacement Ratio*: In comparison to members in the current defined benefit plans, the replacement ratios of income by retirement benefits for new members in the Defined Contribution Plan are expected to decrease from that which is currently provided for several reasons, including the following.
  - The contribution to the Defined Contribution Plan would be 8.12% of pay while the Normal Cost for the Main System is 9.22% of payroll.
  - In practice, individually managed accounts can expect lower investment returns than a longer time horizon, professionally managed defined benefit fund.
  - DC accounts suffer from “leakage” as funds are used for purposes other than retirement.
  - There is a higher cost of annuitization at market annuity rates or else members must assume longevity risk on top of investment risk.

In a letter dated September 3, 2010 (attached), we provided updated analysis of how benefits under the DB Plan compare to benefits under the DC Plan. It showed that the contribution rate for the DC Plan would need to be dramatically increased in order to provide a benefit that is comparable to the current DB Plan. Specifically the analysis shows the following for individuals who are presently in the DC Plan established in the late 1990's:

1. DC Plan participants are projected to have a retirement benefit that is on average 50% less than what they would have had if they stayed in the DB Plan.
2. DC contributions will need to increase to 16.5% to 20% to provide a similar benefit to the current DB system (under the DB Plan a 25 year employee would receive 50% of their final average salary).
3. For those individuals that are age 55 and above the effect of the recent market downturn on their portfolios makes it extremely difficult for them to recover even if contributions are increased dramatically. The recent market downturn highlights

one of the risks faced by DC plan members. Without significant contribution increases or favorable asset returns, these individuals will likely have to work well past age 65 in order to receive satisfactory benefits.

4. The benefit provided in the existing DC Plan is not adequate in providing a comparable benefit to the DB Plan at the existing contribution levels.
- ◆ *Retirement Savings:* The nature of the Defined Contribution Plan with lump sum benefit payments may decrease the amount of a member's retirement benefit that will be available for retirement to the extent it is used for current consumption. Employee Benefit Research Institute (EBRI) statistics indicate that because of this "leakage" effect, less than 100% of employer contributions will actually be used to provide retirement benefits. Based upon the EBRI study entitled "Reported Uses for Any Portion of Lump-sum Distributions", the average amount of distributed funds retained in retirement vehicles (tax-qualified financial savings) is 41.5%. Seventeen percent is saved, and the remainder (41.5%) is used for debt, education or consumption. Forty-six percent of these individuals rolled over at least some of the money into another retirement plan and 27% put some of the money into other savings investments. Because of this "leakage" effect, less than 100% of the employer contributions will actually be used to provide retirement benefits. Nationally, 58.5% of any lump sum distribution is not used for retirement purposes. The current Defined Benefit Plans have minimal leakage of employer contributions.

On average, refund payments under PERS are approximately 24% of the employee contributions. Of these refunds, 58.5% will be used for non-retirement purposes if the national statistics are applied. Thus, the leakage rate on employee contributions is estimated to be about 14% per year or 0.56% of PERS payroll.

If these patterns of refunds and uses of lump sum distributions remain unchanged, the leakage rate on employer contributions under the Defined Contribution Plan could be presumed to be 14%. For every \$1,000,000 of employer contributions accumulated, about \$140,000 will not be available for retirement purposes.

- ◆ *Personal savings:* Participation in a defined contribution plan may increase interest of members to save for retirement because of the participant directed investment feature and the awareness that it is important to save for their own early retirement or post-employment inflation protection. However, the State's Defined Contribution Plan does not provide any separate monetary incentive or opportunity to increase personal savings. The existing PERS main retirement plan added the PEP feature in 1999. One aspect of this provision is to create an incentive for members to engage in supplemental retirement savings. Specifically this feature provides that if a member participates in the State's deferred compensation plan, they will vest in the employer contribution in the Defined Benefit Plan. This provision has helped to encourage participation in the supplemental savings plan and has been successful at enhancing the overall retirement preparedness for those participants. The proposed Defined Contribution Plan would not have a similar defined benefit incentive to encourage participation.

➤ Benefits Equity and Group Integrity

Under the bill virtually all State employees hired after July 31, 2011 would accumulate employer-provided retirement benefits only under the Defined Contribution Plan. Two benefit equity issues arise if this is enacted:

1. Presently PERS Main System members and TFFR members are provided essentially the same benefit at retirement. Both systems provide a benefit equaling 2.0% of pay per year of service which provides essentially identical benefits at retirement. However, if Bill 2 is also enacted the TFFR defined contribution members will receive a contribution of 16.50% of pay (8.75% of which will be paid by the employer), or more than double the PERS members' contribution of 8.12% of pay (4.12% of which will be paid by the employer). Consequently, TFFR members will receive a retirement benefit that is over twice as much as PERS Main System members if investment earnings are the same. This will create a clear inequity between the benefits provided by the two systems.
2. The second equity issue will be in having two types of retirement plans in the workplace with newer employees in the new DC Plan and older employees in the current Hybrid Plan. If the contribution levels for the DC plan are set at 8.12% of pay there will be a clear inequity between the two groups.
3. The above inequities can be at least partially resolved by increasing the contributions of the proposed PERS DC plan to be the same as the proposed TFFR DC plan contributions.

➤ Competitiveness

The Defined Contribution Plan design increases the ability of shorter-term employees to earn and retain a valuable retirement benefit. The Main Plan's Portability Enhancement Provision (PEP) also offers similar benefits, which can be a valuable tool for attracting such employees. The proposed DC Plan, however, may be less competitive for career employee positions compared to other public employee retirement plans. The proposed changes could motivate job mobility and increase turnover. This may or may not be desirable depending on the workforce issues facing the employer.

In another sense, the bill will be following the trend among smaller private sector employers to use defined contribution plans instead of defined benefit arrangements as a primary vehicle for retirement benefits. However, it does not match the designs of many larger private sector employers and most public sector employers that have continued to maintain a combination plan structure - a core defined benefit plan with a supplemental set of defined contribution and/or profit sharing arrangements.

➤ Purchasing Power Retention

A defined contribution plan does not provide guaranteed purchasing power retention after benefits are distributed. The ability to maintain purchasing power will depend solely on the investment performance of the distributed assets. It is not possible under current federal tax laws to directly provide post-retirement increases for defined contribution plan retirees.

➤ Preservation of Benefits

A defined contribution plan can work well to preserve the value of benefits for former members but actual preservation of such values will depend on the investment performance on the amounts distributed. To the extent benefits are not invested adequately or not saved at all for retirement purposes, then the ability to preserve the value of the retirement benefits is diminished.

In July 2009, the federal Government Accountability Office (GAO) published a report that found workers face a number of risks in both accumulating and preserving pension benefits. The GAO found, in relevant part, that workers that receive lump sum distributions, in particular, face several risks related to how they withdraw their benefits, including:

- ◆ *Longevity risk:* Retirees may draw down benefits too quickly and outlive their assets. Conversely, retirees may draw down their benefits too slowly, unnecessarily reduce their consumption, and leave more wealth than intended when they die.
- ◆ *Investment risk:* Assets in which retirement savings are invested may decline in value.
- ◆ *Inflation risk:* Inflation may diminish the purchasing power of a retiree's pension benefits.

➤ Portability

The bill generally provides a high degree of portability of retirement benefits for new State employees who participate in the Defined Contribution Plan, since their entire benefit is available for distribution or rollover after termination of employment. Note that with the PEP the existing Plan also has a significant level of portability.

➤ Ancillary Benefits

- ◆ Pre-retirement death benefits and disability benefits provided under a defined contribution plan would generally be less than similar benefits provided under a defined benefit plan structure because defined contribution plan benefits depend on the total amount of contributions made and investment performance of assets, while defined benefit plan benefits are not contingent upon such factors. Specifically:
  1. The Hybrid Plan provides for a disability retirement benefit of 25% of final average salary calculated at the date of disability. A member is eligible for this after six months of participation in the system. The proposed DC Plan would offer no other disability benefits other than the account balance at the date of disability, which in most cases would be much less than the current Hybrid Plan disability benefit. Many

employers provide disability insurance benefits to employees, which offsets the need for this in the retirement plan. It is our understanding the state does not currently provide employer paid disability insurance to its employees, meaning that under the bill disability benefits would be less than State employees currently receive under Hybrid Plan.

2. Section 54-52-17 (6) (b) provides benefits for the surviving spouse. Essentially the spouse has three choices: 1) a lump sum payment of the member contributions with interest, 2) lifetime payment of monthly benefit equally to fifty percent of the deceased member's accrued single life benefit, or 3) if the member at death was eligible for a normal retirement benefit the spouse can select a benefit equal to the member's 100% J&S benefit. In the proposed DC Plan the spouse would be eligible to receive a lump payment of the account balance only. Generally, the proposed DC Plan benefit would be significantly less than the spouse benefits in the DB Plan. Many employers do have employer paid life plans that offset the need for this benefit in the retirement plan. In North Dakota, it is our understanding that the state only provides \$1,300 in life coverage. In the DC Plan a death benefit could be added or the state could provide expanded life insurance coverage to provide for the surviving spouse, otherwise the bill would result in lower death benefits for State employees than are provided by the current Hybrid Plan.
- ◆ The PERS Plan has from time to time, provided for retiree increases over time with ad hoc adjustments. This has occurred as a result of favorable plan experience and when the Plan's funding situation has allowed. Given the present challenges it is unlikely that the fund will be able to support any ad hoc adjustments until the Plan's funding challenges are overcome. However, at some future date it is possible that the Plan may reach a funded level that would allow it to again provide ad hoc adjustment to retirees. Under the proposed legislation, contributions to the current PERS Plan will decrease as the active population decreases, and the assets will decrease as the liability for members is paid off over time. Since the contributions under the closed plan will be used for paying off the unfunded liability, it is unlikely that excess contributions will be available to fund ad hoc increases to current retirees.

Also, the proposed DC Plan does not provide for sharing of favorable plan experience among members, nor does it specifically provide for ad hoc adjustments to retirees. However, for any members in the proposed DC Plan that realize favorable investment experience, they are able to benefit from what would generally be comparable to an ad hoc adjustment. If the state has a wish to someday provide retiree adjustments a new process would need to be identified.

- ◆ Social Security: No impact.
- ◆ Retiree Health Insurance Credit Plan: Benefits under the current Retiree Health Insurance Credit Plan are coordinated with the Hybrid Plan. Members who are eligible for benefits under the Hybrid Plan are also eligible for the health credit. Since benefits under the proposed Defined Contribution Plan will likely be received as a lump sum in many cases,

it may be necessary to amend the Retiree Health Insurance Credit Plan to allow for receipt of these benefits when a lump sum payment is received.

### **Funding Policy Issues**

#### **> Actuarial Impacts**

As previously noted, the bill will have an actuarial impact on the Hybrid Plan.

- ◆ The bill will have an immediate effect on the actuarial contribution requirement.
- ◆ The bill will not provide for a change in the statutory contribution rate.
- ◆ Projected contributions will be lower than they otherwise would be beginning August 1, 2011.
- ◆ Benefit payments will not be affected for years to come. To illustrate the effect we have projected the market value of assets and the funded ratio of the Main System State employees for the current Plan as well as the proposed plans.

#### **> Investment Impacts**

- ◆ Depending on the performance of the capital markets and the investment choices made by members, new employees participating in the Defined Contribution Plan may experience greater, or, more likely, lesser benefits than those provided under the current Hybrid Plan. The risk of loss or gain is borne by the member.
- ◆ *Cash Flow:* In general, the bill will cause cash flows under PERS and HPRS to be altered as membership does not enter the defined benefit plans as currently anticipated. This will impact cash flow needs for funding and benefit payments under PERS and HPRS. These changes are projected to impact the overall funding of PERS and HPRS for the future, as previously described. As indicated above, it may be desirable to conduct asset-liability and cash flow studies to better predict the outcomes for the Systems.
- ◆ *Asset Allocation:* The bill may create new investment asset allocation issues for the defined benefit plans under PERS and HPRS as the amount of new contributions to the plans decreases relative to the amount of benefit payments from the plans.

### **Administration Issues**

#### **> Implementation Issues**

If passed this bill would be effective on August 1, 2011. PERS may not know if the bill is passed and signed until April of 2011. Due to the magnitude of the changes, three months may not be a sufficient period for this transition. In order to ensure an orderly and effective implementation the effective date of the bill should be January 1, 2012 or later.

➤ Administrative Costs

The bill will have an impact on the administrative resources needed for both the defined benefit plans and Defined Contribution Plan because it would add a relatively large number of new members to the Defined Contribution Plan. Administrative costs may need to be reallocated from the defined benefit plans to the Defined Contribution Plan over time, as membership numbers shift to the Defined Contribution Plan. Initially, however, the bill will require maintaining the administrative resources for the defined benefit plans, while increasing the administrative resources available to the Defined Contribution Plan.

➤ Needed Authority

The bill appears to provide appropriate levels of administrative and governance authority to the PERS Board to implement the changes made by the bill.

➤ Integration

No impact.

➤ Employee Communications

The nature of defined contribution plans allowing participant directed investments will require additional employee education effort regarding retirement and investment planning. The need for this effort is supported by information found in a recent retirement portability study conducted by the federal Office of Management and Budget. A survey of employees indicated an overall low level of understanding of the how to invest moneys for retirement. The survey indicated a low level of understanding regarding investment categories and investment risk. Because the Defined Contribution Plan will be the primary retirement vehicle for its members, it will be critical to provide these education services.

Consideration should be given to participant education, including requiring or allowing members to attend financial planning seminars and meeting with financial advisors in the work place and during working hours. Increasingly, sponsors of defined contribution plans are making available investment advisory services to assist members to invest their retirement assets prudently. There are a variety of methods for providing these education and advisory services that should be examined, including group meetings, individual counseling and technology based approaches. With a DC plan individual members are responsible for monitoring their own investment performance and making changes as appropriate. Their success or failure is a direct result of how they fulfill this responsibility.

➤ Miscellaneous and Drafting Issues

- ◆ Consideration should be given to examining the fiduciary issues surrounding defined contribution plans, including the nature of the risks associated with participant directed investments, provision of employee investment information and education, self-directed brokerage windows, financial and retirement planning and investment advisory services.

The projections were made using generally accepted actuarial practices and are based on the July 1, 2010 actuarial valuation results, including the asset information, participant data and actuarial assumptions on which that valuation was based. In addition, the active member population has been assumed to remain constant in all future years. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

Projections, by their nature, are not a guarantee of future results. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

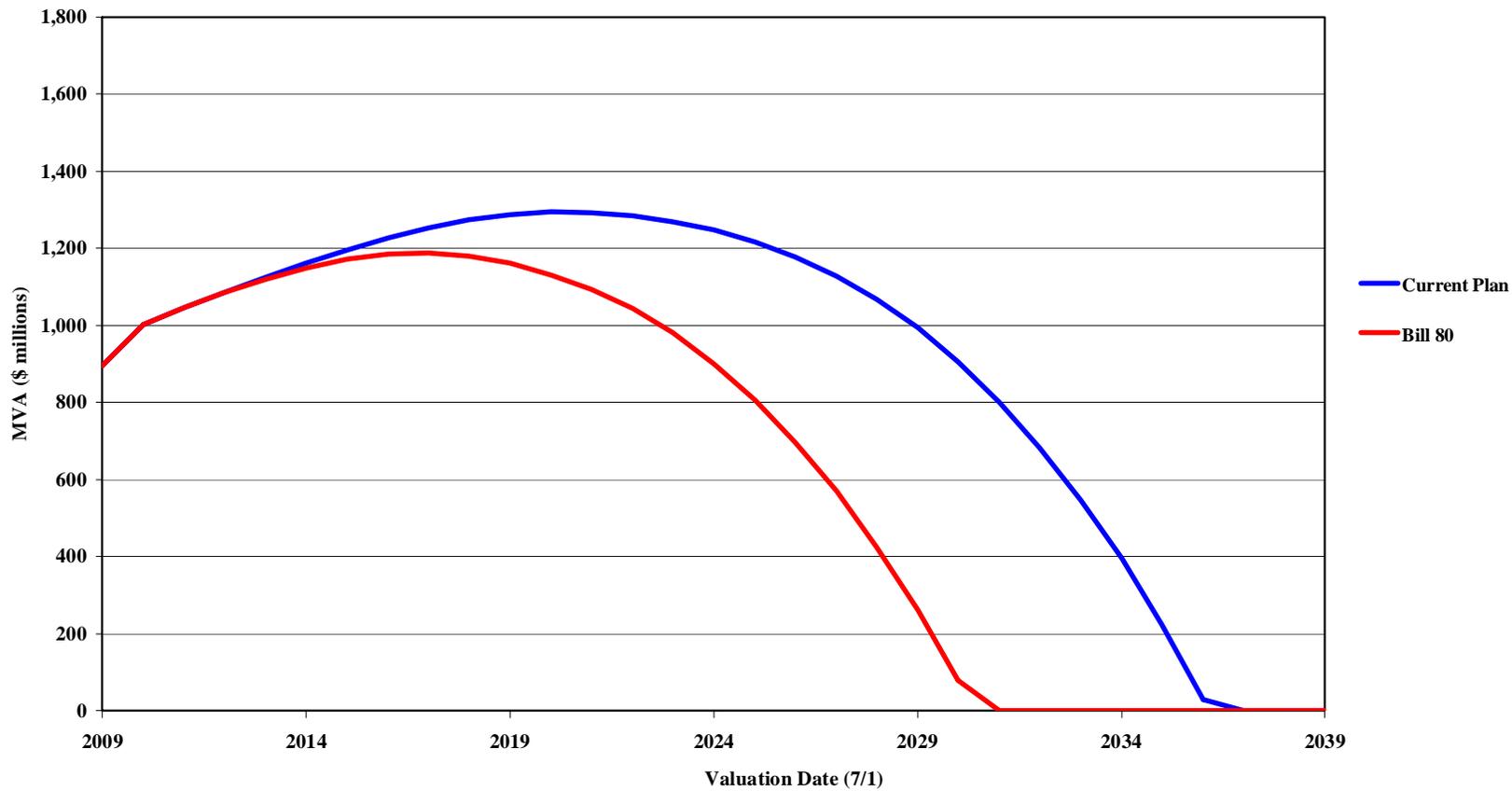
Please call if you have any questions or comments.

Sincerely,

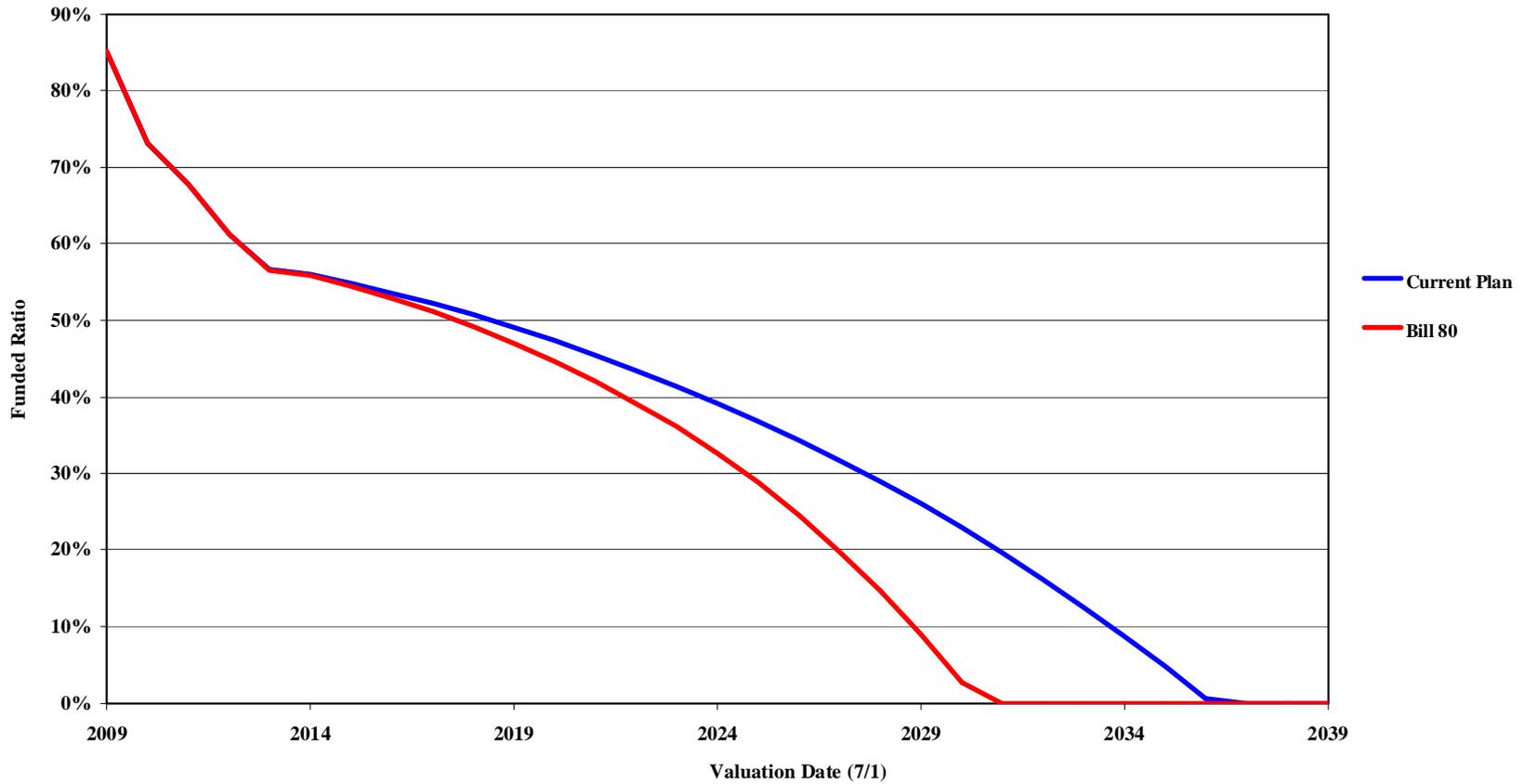
Brad Ramirez, FSA, MAAA, FCA, EA  
Consulting Actuary

Melanie Walker, JD  
Vice President

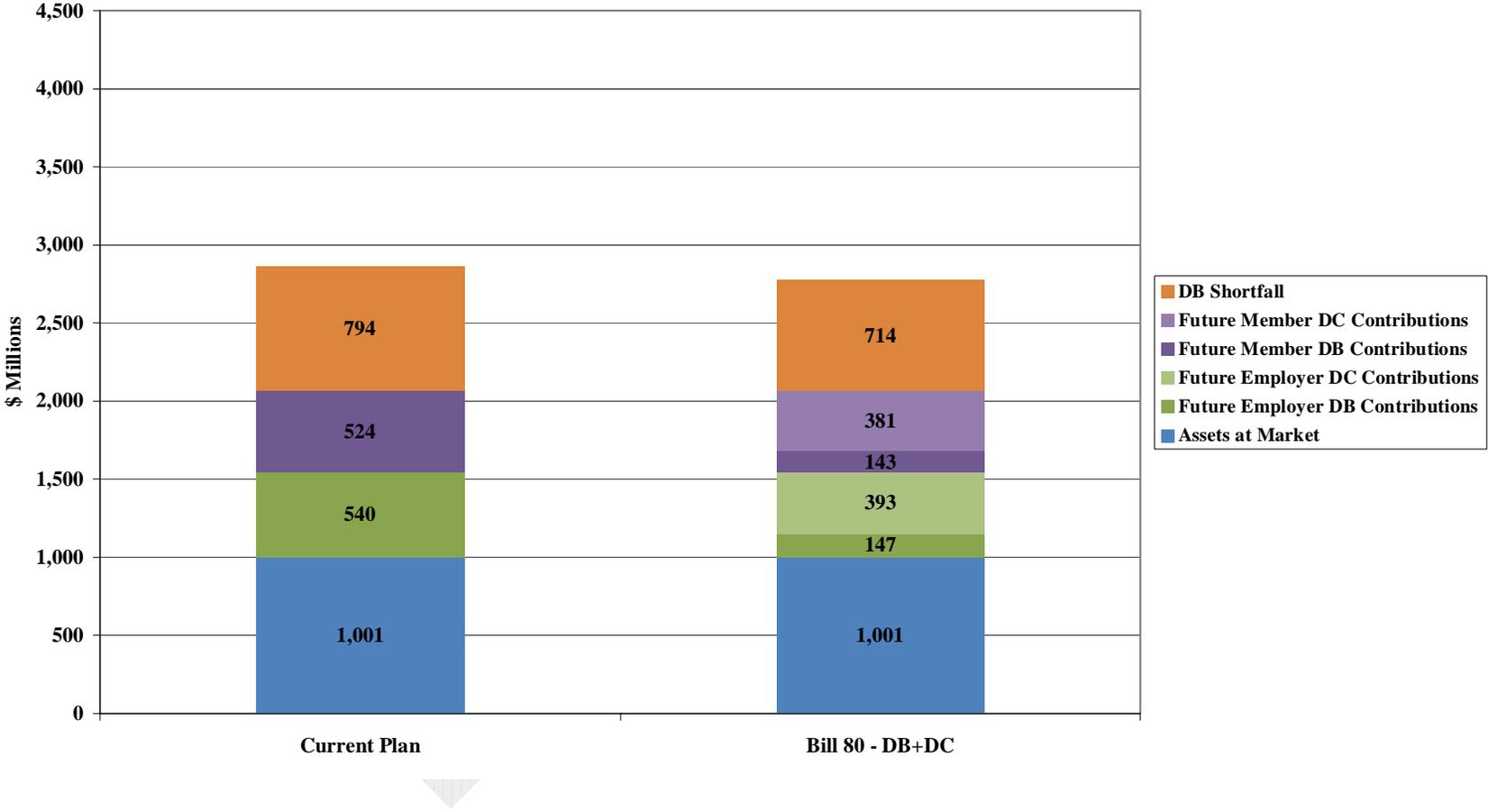
**Chart 1**  
**North Dakota Main System State Employees**  
**Market Value of Assets**  
**Based on July 1, 2010 Data and 8% Market Return Thereafter**



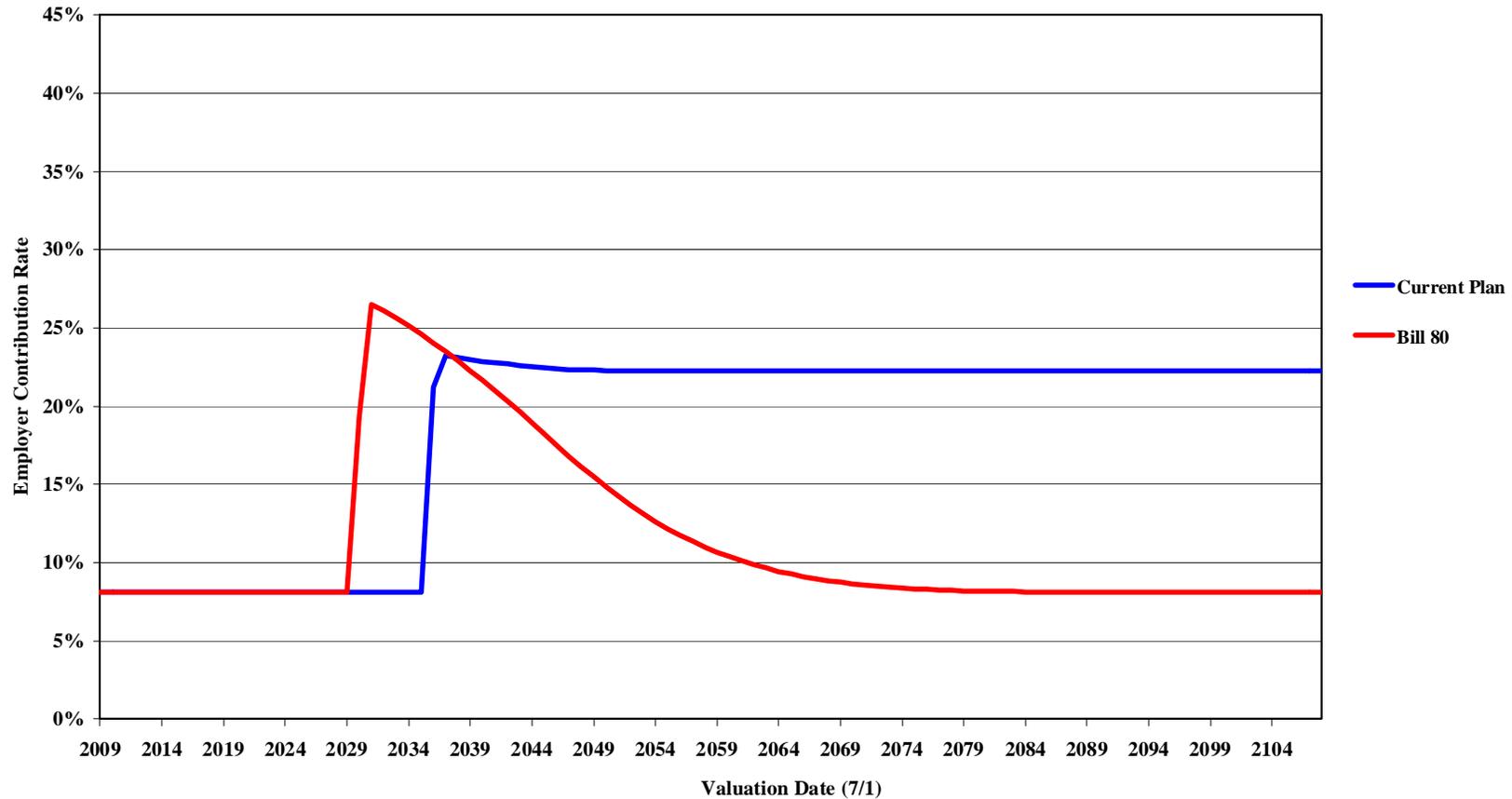
**Chart 2**  
**North Dakota Main System State Employees**  
**Projected Funded Ratio**  
**Actuarial Value of Assets to the Actuarial Accrued Liability**  
**Based on July 1, 2010 Data and 8% Market Return Thereafter**



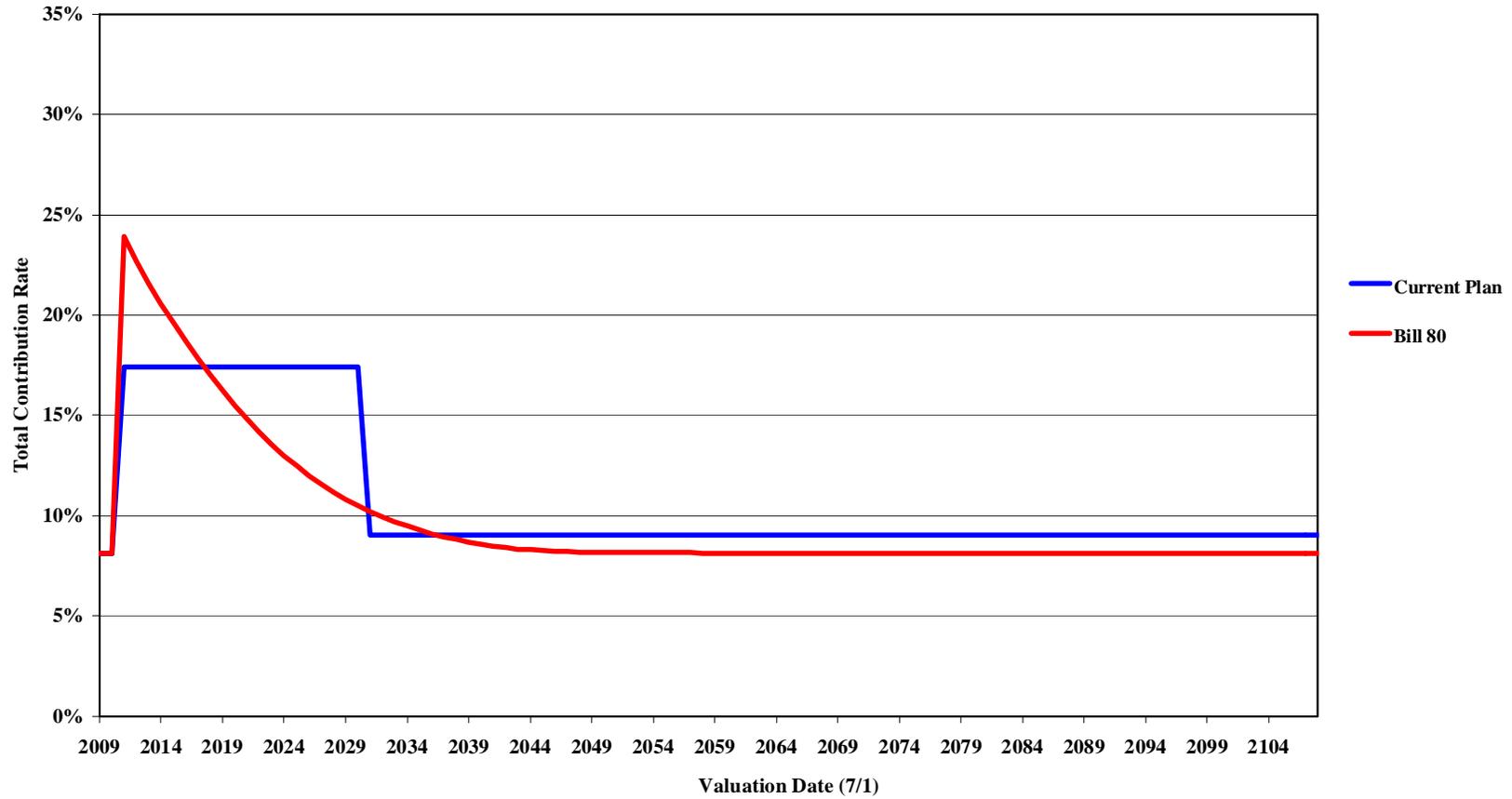
**Chart 3**  
**North Dakota Main System State Employees**  
**Actuarial Present Value of Future Benefits by Funding Source**  
**as of June 30, 2010**



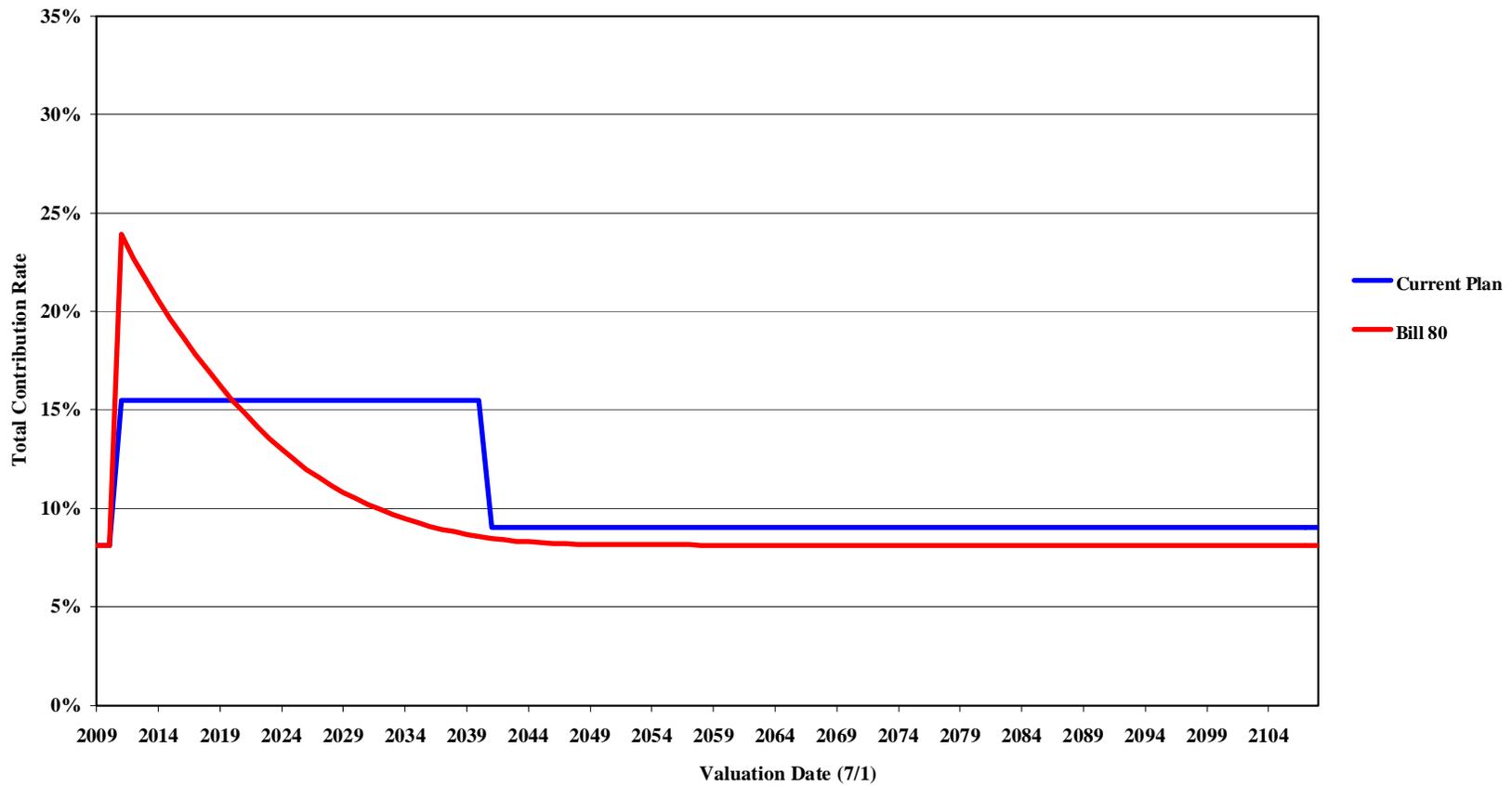
**Chart 4**  
**North Dakota Main System State Employees**  
**Statutory Contribution Rate Plus Required Benefit Payments**  
**Combined Total Contributions (DB Plus DC) as a Percent of Total Payroll**  
**Under Current Statutory Contribution Rate**

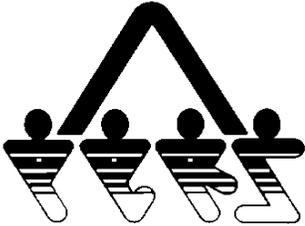


**Chart 5**  
**North Dakota Main System State Employees**  
**Level Prefunding Contribution Rates**  
**Combined Total Contributions (DB Plus DC) as a Percent of Total Payroll**  
**20 Year Amortization for Current DB Plan**



**Chart 6**  
**North Dakota Main System State Employees**  
**Level Prefunding Contribution Rates**  
**Combined Total Contributions (DB Plus DC) as a Percent of Total Payroll**  
**30 Year Amortization for Current DB Plan**





**North Dakota  
Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

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FAX: (701) 328-3920 • EMAIL: [NDPERS@state.nd.us](mailto:NDPERS@state.nd.us) • [discovernd.com/NDPERS](http://discovernd.com/NDPERS)

# Memorandum

**TO:** NDPERS Board  
**FROM:** Kathy  
**DATE:** October 14, 2010  
**SUBJECT:** Job Service COLA

According to Article VII(3) of the plan document for the Retirement Plan for Employees of Job Service North Dakota, “effective each December 1 of any year, the monthly amount of each retirement annuity, death benefit, or disability benefit then payable shall be increased by the percent increase, if any, in the Consumer Price Index.” It further states...”no increase in retirement allowance granted under the Plan, or the date for commencement of such increase, will become effective unless the same increase has been authorized for the Civil Service Retirement System, and unless the increase has been authorized by the NDPERS Board.” This provision for a COLA increase was authorized by the United States Department of Labor as part of a larger agreement reached with the USDOL in the late 1970’s. Since that time the Plan practice has been to provide COLA’s consistent with the Federal Civil Service Plan. The plan assumes a post-retirement COLA of 5%.

The annual COLA percentage adjustment for the Federal Civil Service Plan is not available until October 15<sup>th</sup>. Therefore, the increase and any effect on the system will be provided at the meeting.



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400 East Broadway, Suite 505 • Box 1657  
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FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 14, 2010  
**SUBJECT:** Health Bill Reviews

Attached are the final technical reviews for all the health bills. Deloitte will be at the Board meeting via conference call to review the attached and answer questions. The following is a summary of those bills.

LC Bill Number	Sponsor	Bill Summary
10009.0100	Senators Nelson, Wardner	A BILL for an Act to require health insurance coverage for autism spectrum disorders; and to create and enact a new section to chapter 54 -52.1 of the North Dakota Century Code, relating to public employees retirement system medical benefits coverage for autism spectrum disorders.
10036.0200	Senator Mathern	A BILL for an Act to create and enact a new subsection to section 54 -52-04, five new sections to chapter 54 -52.1, and a new subsection to section 54 -52.1-01 of the North Dakota Century Code, relating to the expansion of the uniform group insurance program to allow participation by permanent and temporary employees of private sector employers and by certain other individuals who are otherwise without health insurance coverage; to amend and reenact section 54 -52.1-02 of the North Dakota Century Code, relating to subgroups under the uniform group insurance program; to provide an appropriation; to provide a continuing appropriation; and to provide an effective date.
10038.0100	Senator Mathern	A BILL for an Act to create and enact a new subsection to section 50 -06-05.1 of the North Dakota Century Code, relating to the powers and duties of the department of human services.
10060.0200	PERS	A BILL for an Act to amend and reenact section 54 -52.1-02 of the North Dakota Century Code, relating to subgroups under the uniform group insurance program.
10068.0100	Senator Mathern	A BILL for an Act to enable the establishment and operation of member -run nonprofit health insurance issuers.
10103.0100	Rep. Carlson	A BILL for an Act to create and enact a new section to chapter 54 -52.1 of the North Dakota Century Code, relating to health savings accounts under the uniform group insurance program.

September 10, 2010  
Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, North Dakota 58505-0360

Dear Representative Grande:

**RE: REVIEW OF PROPOSED BILL 10009.0100 PUBLIC EMPLOYEES RETIREMENT SYSTEM  
MEDICAL BENEFITS COVERAGE FOR AUTISM SPECTRUM DISORDERS**

The following summarizes the proposed legislation as well as our assessment of the financial and technical impacts of the bill.

**OVERVIEW OF PROPOSED BILL**

As proposed, this bill would modify the North Dakota Century Code relating the Public Employees Retirement System Medical Benefits as follows:

- The PERS board shall provide coverage for the diagnosis and the treatment of an autism spectrum disorder in an eligible individual.
- An eligible individual is under eighteen years of age, under twenty six and attending a postsecondary education institution, or over eighteen and in high school but diagnosed as having a developmental disability at eight years of age or under.
- Coverage is not subject to any limit on the number of visits. However, the bill does state a limit on benefits to a maximum of \$25,000 per year and a lifetime maximum of \$75,000. The dollar limits would be in direct conflict with federal health reform and the Patient Protection and Affordable Care Act (“PPACA”).

**EXPECTED FINANCIAL IMPACT**

PERS currently purchases health insurance on a fully insured basis from Blue Cross Blue Shield of North Dakota. Based on a November 2004 Autism Prevalence Report from FightingAutism (data source: U.S. Department of Education and the Individuals with Disabilities Education Act), we estimate approximately 85 PERS members would receive treatment for autism spectrum disorder at a cost to the plan of \$25,000 to \$35,000. The equates to a per member per month cost of \$3.08 to \$4.31 or approximately \$2,125,000 to \$2,975,000 annually.

**TECHNICAL COMMENTS**

The Patient Protection and Affordable Care Act that was signed into law on March 23, 2010. Subtitles A and C include a ban on annual and lifetime limits as well as outlining provisions for grandfathered plans.

To: Representative Grande  
Subject: Proposed Bill 10009.0100  
Date: September 10, 2010  
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We do not believe that PPACA would allow for annual or lifetime limits on the coverage of autism spectrum disorder and would therefore have an unlimited maximum. Based on a Harvard School of Public Health estimate and various other statistics, we estimate the average cost of diagnosis and treatment to be \$35,000. As some components of treatment (e.g. pharmacy, psychological) may be covered today, we are estimating a range of costs from \$25,000 to \$35,000.

For the biennium beginning July 1, 2011, PERS group health insurance plan intends to be a "Grandfathered Plan". Section 1251 of the Patient Protection and Affordable Care Act ("PPACA") exempts from certain of the PPACA's group health plan reforms any group health plan in existence on March 23, 2010 ("grandfathered plans"). Losing grandfather status means losing the benefit of the exemption and subjecting the plan to additional requirements, such as mandatory coverage for certain preventive services, nondiscrimination rules for fully-insured plans, and special claims procedure requirements.

Interim final regulations (dated June 17, 2010) state that if a plan has a new or modified annual limit that imposes an overall annual limit on the dollar value of benefits would cease to be a grandfathered plan.

If NDPERS were to lose its grandfathered status the following additional mandates may apply (subject to final rules and regulations):

1. Meet the rules on deductible maximums and out of pocket maximums

We believe that this will have little or no impact since the maximums would most likely align with the levels associated with HSA qualified plans.

2. Required coverage of preventive services with no cost sharing (BCBS has indicated that complying with this could cost between \$10 – \$14 per contract per month)

As we understand it, the plan would need to cover additional amounts beyond the \$200 limit currently in place for this benefit. We believe that this will have a cost impact. We don't have the level of claim detail that BCBS has to develop such an estimate at this time. We would be happy to review the information and cost development by BCBS.

3. Internal and external appeal process

We believe that this should be of minimal cost impact, but would increase administrative costs for PERS.

4. No prior authorization for ob-gyn visits

Based on our experience with clients that allow ob-gyn visits without prior authorization, we suspect that this would have minimal cost impact.

5. Emergency care must have same payment in and out of network, authorization

Again, we suspect that the cost impact will be minimal given that it is for emergency care only.

To: Representative Grande  
Subject: Proposed Bill 10009.0100  
Date: September 10, 2010  
Page 3

6. Nondiscrimination in both insured and self-insured plans

Should not be an issue for the PERS plan.

7. Coverage of treatment for those in clinical tests

We would expect that this would have some cost impact, but depends upon the future guidance on clinical trial qualification and coverage levels.

Sincerely,

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Patrick L. Pechacek, CEBS  
Director

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Peter Roverud  
Senior Manager

CC: Sparb Collins, NDPERS

September 10, 2010  
Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, North Dakota 58505-0360

Dear Representative Grande:

**RE: REVIEW OF PROPOSED BILL 10036.0200 EXPANDING THE UNIFORM “GROUP INSURANCE PROGRAM” TO ALLOW PARTICIPATION BY PRIVATE SECTOR EMPLOYEES AND CERTAIN PRIVATE CITIZENS BETWEEN THE AGES OF 50 AND 65**

The following summarizes the proposed legislation as well as our assessment of the financial and technical impacts of the bill.

#### **OVERVIEW OF PROPOSED BILL**

As proposed, this bill would modify the State Century Code relating to the expansion of the uniform group insurance program as follows:

- Extend the benefits of the uniform group insurance program to allow permanent employees, between the ages of 50-65, of private sector employers to participate in the uniform group insurance program.
- Extend the benefits of the uniform group insurance program to allow temporary employees, between the ages of 50-65, of private sector employers to participate in the uniform group insurance program.
- Extend the benefits of the uniform group insurance program to allow certain private citizens, between the ages of 50-65, to participate in the uniform group insurance program.
- Allow licensed agents to sell the uniform group insurance and receive commissions for sales.
- Authorize NDPERS Board to add up to three full-time equivalent positions and appropriate up to \$300,000 to implement the proposed changes to the uniform group insurance program.
- Requires the Board apply for and receive exempt status under the Employee Retirement Income Security Act to allow expansion of the uniform group insurance program. Further the board must determine that the utilization of medical underwriting requirement and risk-adjusted premiums does not violate the Health Insurance Portability and Accountability Act (HIPAA) and enter a contract with an insurer to provide coverage.

To: Representative Grande  
Subject: Proposed Bill 10036.0200  
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### **EXPECTED FINANCIAL IMPACT**

The bill expands the uniform group insurance program which is currently fully insured with Blue Cross Blue Shield of North Dakota (“BCBSND”) for medical and hospital coverage. As outlined the uniform group may be divided into separate subgroups at the discretion of the board. If the separate subgroups would be allowed to have stand alone premiums based on their expected costs, the financial impact to the existing PERS plan would be limited to the additional administrative costs to oversee the plan, operate much like an insurance company, and any required changes to comply with the new legislation (e.g. loss of grandfathered status).

The board has the authority to have one subgroup for all private sector employee and private citizen group medical and hospital benefits coverage. Each of these distinct categories has unique underwriting and legal standards with regards to medical underwriting requirements and risk adjusted premiums. This complexity will make it very difficult to combine all three categories into one subgroup for premiums and find an insurer willing to cover the risk.

#### Permanent Employees of Private Sector Employers

Section 4 of the bill would allow private sector employers to extend the benefits of the uniform group insurance program to a subset of its permanent employees who are at least 50 but not reached the age of 65, with a minimum participation period of sixty months. The employer may determine the amount of the employer’s monthly contribution and the board may apply medical underwriting requirements and risk-adjusted premiums to an employer seeking to obtain coverage. As discussed below, HIPAA essentially eliminates the ability for a group health plan to use any individual underwriting for evaluating individual prospective plan participants. However, group underwriting and risk adjusted premiums are permitted.

#### Temporary Employees of Private Sector Employers

Section 5 of the bill would allow private sector employers to extend the benefits of the uniform group insurance program to a temporary employee who is at least 50 but not reached the age of 65. Temporary employees are traditionally excluded from group coverage due to the potential adverse selection. The temporary employee shall be responsible for premiums and the board may deny coverage if the risk of the individual is undesirable for the program. HIPAA portability and non-discrimination standards do not apply to individual coverage. However, insurance carriers can individually underwrite all applicants for underlying risk characteristics and to evaluate individuals for acceptance into the program. This requirement would be labor intensive and require the uniform group insurance program to operate much like a traditional insurance company.

#### Participation by Private Citizens

Section 6 of the bill would allow an individual who is at least 50 but not reached the age of 65 to participate in the uniform group insurance program. The temporary employee shall be responsible for premiums and the board may deny coverage if the risk of the individual is undesirable for the program. Once again, HIPAA portability and non-discrimination standards do not apply to individual coverage. However, individual insurance carriers can individually underwrite all applicants for underlying risk characteristics and to evaluate for acceptance into the program. This requirement would be labor intensive and require the uniform group insurance program to operate much like a traditional insurance company.

To: Representative Grande  
Subject: Proposed Bill 10036.0200  
Date: September 10, 2010  
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The bill did appropriate the sum of \$300,000 and authorized three additional full-time positions to implement this act. It should be noted that administrative costs for individual plans are significantly higher than for group plans. Without a study to determine if the additional funding and staff allocations would be adequate to cover the added administrative services required due to the expansion of the program, it is difficult to determine if this funding level is adequate. An additional study is suggested to estimate the administrative requirements to PERS if this bill progresses.

For the biennium beginning July 1, 2011, PERS group health insurance plan intends to be a "Grandfathered Plan". Section 1251 of the Patient Protection and Affordable Care Act ("PPACA") exempts from certain of the PPACA's group health plan reforms any group health plan in existence on March 23, 2010 ("grandfathered plans"). Losing grandfather status means losing the benefit of the exemption and subjecting the plan to additional requirements, such as mandatory coverage for certain preventive services, nondiscrimination rules for fully-insured plans, and special claims procedure requirements.

Interim final regulations (dated June 17, 2010) state that if the principle purpose of a merger, acquisition, or similar business restructuring is to cover new individuals under a grandfathered health plan, the plan ceases to be a grandfathered health plan.

If PERS were to lose its grandfathered status the following additional mandates may apply (subject to final rules and regulations):

1. Meet the rules on deductible maximums and out of pocket maximums

We believe that this will have little or no impact since the maximums would most likely align with the levels associated with HSA qualified plans.

2. Required coverage of preventive services with no cost sharing (BCBS has indicated that complying with this could cost between \$10 – \$14 per contract per month)

As we understand it, the plan would need to cover additional amounts beyond the \$200 limit currently in place for this benefit. We believe that this will have a cost impact. We don't have the level of claim detail that BCBS has to develop such an estimate at this time. We would be happy to review the information and cost development by BCBS.

3. Internal and external appeal process

We believe that this should be of minimal cost impact, but would increase administrative costs for PERS.

4. No prior authorization for ob-gyn visits

Based on our experience with clients that allow ob-gyn visits without prior authorization, we suspect that this would have minimal cost impact.

5. Emergency care must have same payment in and out of network, authorization

Again, we suspect that the cost impact will be minimal given that it is for emergency care only.

To: Representative Grande  
Subject: Proposed Bill 10036.0200  
Date: September 10, 2010  
Page 4

6. Nondiscrimination in both insured and self-insured plans

Should not be an issue for the PERS plan.

7. Coverage of treatment for those in clinical tests

We would expect that this would have some cost impact, but depends upon the future guidance on clinical trial qualification and coverage levels.

**ADDITIONAL FINANCIAL IMPACTS**

Adverse risk selection is an issue that must be considered when changing eligibility requirements. Adverse risk selection results when individuals or employer groups choose to participate in a plan based upon the knowledge that their individual or group claims will be high. These claims, especially for older and temporary workers, are generally higher than that of the average covered PERS population. The adverse selection is further fueled when individuals or groups can enter and depart from the plan.

The proposed bill provides for a number of safeguards against adverse risk selection:

❑ Minimum requirements as established by the PERS Board

The Board is permitted to establish minimum requirements to reduce the potential for adverse selection. These would likely follow established insurance practices such as experience rating, medical underwriting and the authority to deny coverage to private employers or individuals who exceed the risk profile of the existing PERS group.

❑ Minimum participation period of 60 months for private sector employer groups

Eligible employer groups would be expected to participate for a minimum of 60 months. However, if a group withdraws from the plan prior to completing the 60-month period, the employer would be liable for additional premium payments to cover expenses incurred by the program exceeding the premium income received. This safeguard will make the PERS plan financially “whole” for those employers attempting to leave in a “deficit” position. However, this safeguard does not protect the PERS plan from the risk of premature withdrawal by better-than-average cost employers. In other words, “healthy” employer groups could leave for lower premiums elsewhere.

❑ Health Insurance Portability and Accountability Act (HIPAA)

We do not feel this bill will have a significant impact upon the PERS plan if PERS can use appropriate underwriting rules and premium adjustments to make sure that the introduction of these additional members will not increase the overall risk profile of the existing plan. The bill as written states that employers/employees/uninsured individuals may participate in the uniform group insurance program “subject to minimum requirements established by the board” and “apply medical underwriting requirements and risk-adjusted premiums.

To: Representative Grande  
Subject: Proposed Bill 10036.0200  
Date: September 10, 2010  
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However, in 1996, the federal government passed the Health Insurance Portability and Accountability Act (HIPAA). In particular, the nondiscrimination rules severely restricted the use of medical underwriting and risk-adjusted premiums for group healthcare coverage. Therefore, the State needs to understand whether HIPAA prohibits PERS from using medical underwriting and risk adjusted premiums when adding the new groups to the uniform group insurance program.

Due to the participation requirement of age 50 to 65 years of age for private employees and private citizens, the risk status of the proposed new participants in the uniform group program is likely to be significantly greater than the current program's risk status requiring higher premiums. Typically a 50-65 year old employee will incur claims expenses 50-70% higher than an average employee. The result will be an increase in the total risk of the program, which translates into an increase in average claims cost and potentially administrative fees. In other words, you can expect that premiums for this 50-65 year old group will be 50-70% higher than the existing NDPERS premiums and could require a significant increase in administrative fees.

#### **TECHNICAL COMMENTS**

The proposed bill includes a provision for the Board to operate the group insurance program as a governmental plan provided that the Board applies to the federal government and receives exempt status under the Employee Retirement Income Security Act (ERISA) for the uniform group insurance plan. Such a waiver would be required to allow a governmental plan to cover non-governmental entities and private citizens without losing its status as a governmental plan. ERISA section 3(32) and Internal Revenue Code section 414(d) define a governmental plan as one established by a governmental unit for its employees. If PERS is unable to get a waiver it is our interpretation that the provisions of this bill would not be effective.

Section 3 of the bill proposes providing "private sector employees and private citizens medical and hospital benefits coverage", however there is no mention of prescription drug, dental or vision coverage. This should be clarified with the bill's sponsor.

Section 10 of the bill requires the board to enter a contract with an insurer to provide coverage pursuant to this Act. This act requires the uniform group insurance program to basically act as an insurance carrier, with underwriting responsibilities for private employers, temporary employees and individuals. We believe it will be a challenge to find an insurer willing to provide the necessary coverage pursuant to this Act.

With the recent enactment of PPACA, State-based health exchanges will become available for individuals and small groups to purchase health insurance by 2014. It is unclear how a group product for groups and individuals between the ages of 50-65 would co-exist with the products that may be offered on the exchanges. This should be considered as this bill moves forward.

Finally, we have one last technical comment regarding state premium taxes. We would expect that premiums for private sector employees would not be exempt from Section 26.1-03-17 NDCC. This should be clarified within the bill.

To: Representative Grande  
Subject: Proposed Bill 10036.0200  
Date: September 10, 2010  
Page 6

Sincerely,

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Patrick L. Pechacek, CEBS  
Director

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Peter Roverud  
Senior Manager

CC: Sparb Collins, NDPERS

DRAFT

September 13, 2010  
Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, North Dakota 58505-0360

Dear Representative Grande:

**RE: REVIEW OF PROPOSED BILL 10038.0100 PURCHASING PERS HEALTH INSURANCE FOR EACH MEDICAID-ELIGIBLE INDIVIDUAL IN LIEU OF MEDICAID COVERAGE**

The following summarizes the proposed legislation as well as our assessment of the financial and technical impacts of the bill.

**OVERVIEW OF PROPOSED BILL**

As proposed, this bill would modify the North Dakota Century Code relating to the powers and duties of the Department of Human Services as follows:

- To purchase PERS Health Insurance coverage for each Medicaid-eligible individual in lieu of Medicaid coverage

**EXPECTED FINANCIAL IMPACT**

The bill authorizes the Department of Human Services to consider purchasing PERS coverage for Medicaid. The bill does not provide any similar authorization to PERS to extend such coverage to Medicaid participants or set the parameters for such an offering. This has the following implications:

1. The PERS statute would need to be modified to allow offering this coverage. PERS statute 54-52.1 would need to be altered:
  - a. PERS is designed around active employees, temporary employees and retirees. This group would need to be identified as eligible in statute.
  - b. PERS has specific subgroups for the above membership groups. Medicaid participants would need to be identified within the existing subgroups or identified separately.
  - c. Eligibility processes would need to be set up in statute.
  - d. Appropriation and billing processes will need to be established in statute.

To: Representative Grande  
Subject: Proposed Bill 10038.0100  
Date: September 13, 2010  
Page 2

- e. Extensive changes will need to be made to the PERS business system. A separate analysis will need to be done and a separate appropriation will need to set.
2. Currently PERS only has one plan design and it would not meet the federal cost sharing requirements. Medicaid-eligible participants adopting the PERS benefit design be subject to result in higher deductibles/copays/coinsurances for the Medicaid-eligible members as compared with their current Medicaid plan design copays. It would require submission of a state plan amendment, but more likely a waiver as PERS plan design costs will clearly exceed 5% of income for many Medicaid enrollees (statutory cap set by CMS). It is highly unlikely that a state amendment or waiver would be approved for this level of cost sharing.
3. PERS currently purchases health insurance on a fully insured basis from Blue Cross Blue Shield of North Dakota (BCBSND). PERS is set up to charge premiums to the members through employers. This group would require a substantially different billing arrangements. Statutory procedures would need to be established within PERS and the Department of Human Services for payment and administrative services.

Medicaid plans are regulated by the Center for Medicare and Medicaid Services (CMS) and are extremely complex. Most states have a substantial staff dedicated to the administration of the program. Without a study to determine needed staffing by PERS and BCBSND, it is difficult to estimate with any confidence the additional administrative costs to take on such a group of individuals.

For the biennium beginning July 1, 2011, PERS group health insurance plan intends to maintain its status as a "Grandfathered Plan". Section 1251 of the Patient Protection and Affordable Care Act ("PPACA") exempts from certain of the PPACA's group health plan reforms any group health plan in existence on March 23, 2010 ("grandfathered plans"). Losing grandfather status means losing the benefit of the exemption and subjecting the plan to additional requirements, such as mandatory coverage for certain preventive services, nondiscrimination rules for fully-insured plans, and special claims procedure requirements.

Interim final regulations (dated June 17, 2010) state that if the principle purpose of a merger, acquisition, or similar business restructuring is to cover new individuals under a grandfathered health plan, the plan ceases to be a grandfathered health plan.

If PERS were to lose its grandfathered status the following additional mandates may apply (subject to final rules and regulations):

1. Meet the rules on deductible maximums and out of pocket maximums

We believe that this will have little or no impact since the maximums would most likely align with the levels associated with HSA qualified plans.

2. Required coverage of preventive services with no cost sharing (BCBS has indicated that complying with this could cost between \$10 – \$14 per contract per month)

As we understand it, the plan would need to cover additional amounts beyond the \$200 limit currently in place for this benefit. We believe that this will have a cost impact. We don't have the level of claim detail that BCBS has to develop such an estimate at this time. We would be happy to review the information and cost development by BCBS.

To: Representative Grande  
Subject: Proposed Bill 10038.0100  
Date: September 13, 2010  
Page 3

3. Internal and external appeal process

We believe that this should be of minimal cost impact, but would increase administrative costs for PERS.

4. No prior authorization for ob-gyn visits

Based on our experience with clients that allow ob-gyn visits without prior authorization, we suspect that this would have minimal cost impact.

5. Emergency care must have same payment in and out of network, authorization

Again, we suspect that the cost impact will be minimal given that it is for emergency care only.

6. Nondiscrimination in both insured and self-insured plans

Should not be an issue for the PERS plan.

7. Coverage of treatment for those in clinical tests

We would expect that this would have some cost impact, but depends upon the future guidance on clinical trial qualification and coverage levels.

#### **ADDITIONAL FINANCIAL IMPACTS**

If the Medicaid-eligible individuals are included in the same experience pool as the existing PERS population and are considered in the PERS premium rate calculations, there will be a financial impact to the existing PERS group health plan. The size and impact of this change on PERS group health plan premium rates would require further detailed analysis but likely to significantly increase premium costs. Also an assessment will need to be done if the PERS statute is modified that would be based upon these changes to determine the effect it would have on the GASB 45/OPEB liability for the State of North Dakota

This will also have a general cost effect on the state since Medicaid provides reimbursement rates lower than commercial health insurance reimbursement. As PERS currently purchases insurance from BCBSND the change from the Medicaid fee schedule to a commercial fee schedule will increase costs to the state for the same services.

States that wish to adopt alternate cost sharing allowed under Soc. Sec. Act §1916A must provide for public comment on the proposed state plan amendment (SPA) before submitting it to CMS. If the amended state plan would allow a family's aggregate cost sharing obligations to exceed 5 percent of income, the proposed SPA must describe: (1) the methodology the state will use to identify for providers the patients and/or services not subject to cost sharing; (2) the methodology the state will use to track the cost sharing paid by families so that they do not exceed the 5 percent aggregate limit for the state's designated period of eligibility; and (3) how beneficiaries may request a redetermination of their cost sharing responsibility when their income is reduced or their assistance has been terminated for failure to pay premiums. The SPA also must specify how providers will be able to determine whether a beneficiary may be required to pay cost sharing before receiving services.

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Because Medicaid is a joint Federal-State program, the State of North Dakota receives matching funds from the Federal Government to subsidize the program. If the State purchases PERS health insurance coverage for these participants, it is possible the State will lose its Federal Medicaid subsidy if viewed as no longer being enrolled in Medicaid.

#### **TECHNICAL COMMENTS**

The Board would be required to apply to the federal government to receive exempt status under the Employee Retirement Income Security Act (ERISA) for the uniform group insurance plan. Such a waiver would be required to allow a governmental plan to cover non-governmental entities and private citizens without losing its status as a governmental plan. ERISA section 3(32) and Internal Revenue Code section 414(d) define a governmental plan as one established by a governmental unit for its employees. It is not clear how the Board should proceed if an ERISA “waiver” is not granted.

While this bill would allow the Department of Human Services to negotiate for coverage through PERS additional extensive changes in the PERS statute are needed to offer such coverage.

The Board would also need Statute changes to section 54-52 allowing these individuals to be added to PERS.

Sincerely,

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Patrick L. Pechacek, CEBS  
Director

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Peter Roverud  
Senior Manager

CC: Sparb Collins, NDPERS

September 13, 2010  
Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, North Dakota 58505-0360

Dear Representative Grande:

**RE: REVIEW OF PROPOSED BILL 10060.0200 AMENDMENT RELATING TO SUBGROUPS, RECEIVING BIDS FOR PRESCRIPTION DRUG COVERAGE, SELF-INSURANCE FOR PRESCRIPTION DRUG COVERAGE AND CONTINGENCY RESERVE FUND REQUIREMENTS**

The following summarizes the proposed legislation as well as our assessment of the financial and technical impacts of the bill.

#### **OVERVIEW OF PROPOSED BILL**

As proposed, this bill would amend the North Dakota Century Code relating to the uniform group insurance program as follows:

- Allow another lower cost coverage option for retired employees not eligible for Medicare.
- Allow the board to receive separate bids for prescription drug coverage
- Allow the board to consider self insurance of the health insurance benefits as well as part or all of the prescription drug coverage.
- Establishes a target range of contingency reserve funds and a timeline to meet the reserve requirement

#### **EXPECTED FINANCIAL IMPACT**

The bill expands the options made available to the NDPERS Board and should not have any financial impact and will allow for exploration of plan and funding alternatives that could save costs in the future.

#### ***Lower Cost Option for Non-Medicare Eligible Retirees***

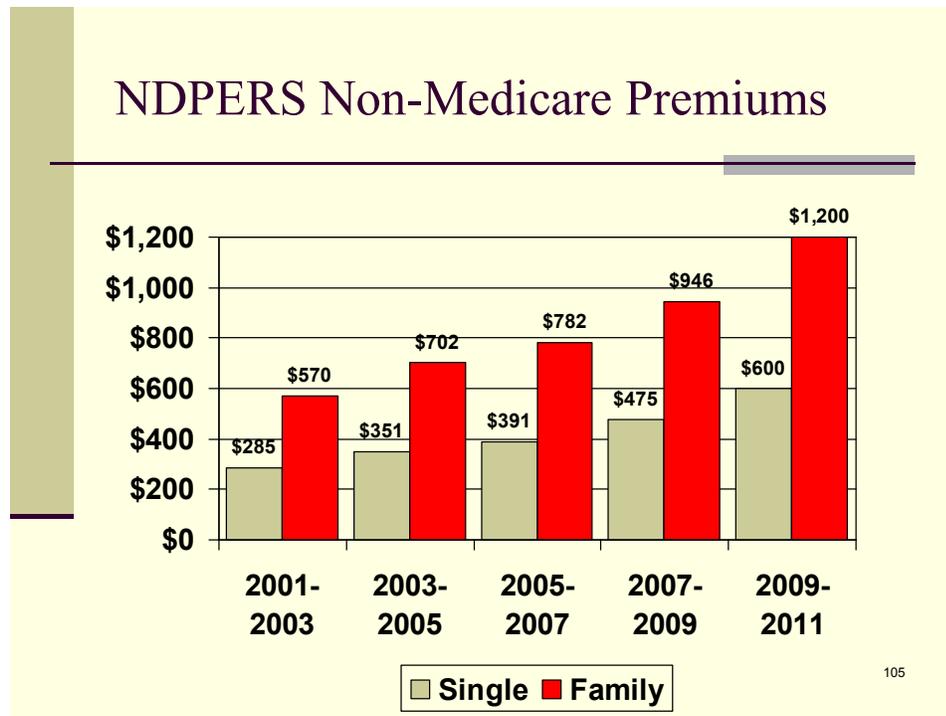
Currently Non-Medicare retiree's rates are set at 150% of the active rate. The board is interested in offering a lower cost plan that does not increase the implicit subsidy as determined by the governmental accounting standards board's other postemployment benefit reporting procedure.

This bill would allow the board to consider offering a lower cost plan that is more affordable for premedicare retirees. The plan would be offered with a one-time open enrollment and then subject to

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continuation as specified in section 54-52.1-03. As this is a lower cost option and is intended to be priced based on its true actuarial value, we anticipate no financial impact to the plan.

The challenge the premedicare group has had with rates under the existing structure can be viewed in the following graph from PERS;



As the above shows premiums have become very high. The proposed change would allow PERS to offer another lower cost plan. This additional plan would likely be a High Deductible Plan (HDHP) which would allow those eligible retirees to contribute to a Health Savings Account (HSA) as long as they are not Medicare eligible. There are many administrative and policy issues to consider which were addressed previously in a memo from Gallagher Benefit Services to Sparb Collins (December 28, 2007).

As another coverage option may be offered, provided the option does not increase the implicit subsidy as determined by the governmental accounting standards board's other post employment benefit reporting procedure. This option will need to be priced on a true actuarial value or higher. Much work has begun on exploring additional options for premedicare retirees and no new plan will be offered if it increases costs to PERS and its retirees.

#### ***Stand Alone Prescription Drug Plan and Self Insurance of Benefits***

By allowing the board to receive separate fully insured and self insured bids for prescription drug coverage and health benefits separately, the board can consider additional vendors beyond those that currently administer the medical and hospital benefits. Stand alone pharmacy benefit managers have the potential to negotiate more advantageous arrangements as well as creating increased competition

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and advantageous pricing. The board would only consider a self insured plan if determined as less costly than an insured bid with equivalent contract benefits.

### ***Contingency Reserve Fund***

The proposed bill also changes the contingency reserve requirements of NDCC 54-52.1-04.3 for a self insured plan. The statute states:

**54-52.1-04.3. Contingency reserve fund – Continuing appropriation.** The board shall establish under a self-insurance plan a contingency reserve fund to provide for adverse fluctuations in future charges, claims, costs, or expenses of the uniform group insurance program. *The board shall determine the amount necessary to provide a balance in the contingency reserve fund equal to three and one-half months of claims paid based on the average monthly claims paid during the twelve-month period immediately preceding March first of each year.* The board may arrange for the services of an actuarial consultant to assist the board in making the determination. All moneys in the contingency reserve fund, not otherwise appropriated, are appropriated for the payment of claims and other costs of the uniform group insurance program during periods of adverse claims or cost fluctuations. (emphasis added)

The italic and underlined section requires the board to establish a contingency reserve fund equal to 3.5 month of claims which would be currently be about \$60 million. The Attorney General Office indicated this should be funded over a reasonable period of time. They also indicated that Incurred but Not Reported Claims (IBNR) can not be counted as part of the contingency reserve funds. The present statutory requirements::

1. Creates a significant disadvantage to a self insured option.
2. Changing its provision would help to make it more competitive and would enhance the bidding process cost

A market assessment was conducted and found that prudent and conservative recommendation of reserve levels would be 1.1 to 1.6 months for incurred but not paid (IBNP) claims and 2.0 to 3.2 months for Contingency Reserves. Based upon this review the proposed bill draft would now be to require a target of 1 - 1.5 month incurred but not paid reserve and a 1.5 – 3 month contingency reserve within 60 months of becoming self insured. This change will permit the board to implement an RFP strategy that considers self insured option and will provide a more competitive and enhanced bidding process that may reduce overall premium costs.

Sincerely,

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Patrick L. Pechacek, CEBS  
Director

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Peter Roverud  
Senior Manager

CC: Sparb Collins, NDPERS



**Deloitte Consulting LLP**  
Suite 2800  
50 South Sixth Street  
Minneapolis, MN 55402-1844  
USA

Tel: 612.397.4000  
Fax: 612.397.4450  
www.deloitte.com

September 10, 2010  
Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, North Dakota 58505-0360

Dear Representative Grande:

**RE: REVIEW OF PROPOSED BILL 10068.0100 ENABLE THE ESTABLISHMENT OF MEMBER-RUN  
NONPROFIT HEALTH INSURANCE ISSUERS**

The following summarizes the proposed legislation as well as our assessment of the financial and technical impacts of the bill.

#### **OVERVIEW OF PROPOSED BILL**

As proposed, this bill would enable the establishment of member-run nonprofit health insurance entity.

#### **EXPECTED FINANCIAL IMPACT**

PERS currently purchases health insurance on a fully insured basis from Blue Cross Blue Shield of North Dakota. This bill does not directly effect PERS but could establish an alternative member-run nonprofit entity that would be an additional alternative for PERS and its members to consider. This bill should have no financial impact as member would continue to receive coverage from the PERS uniform group insurance program.

#### **TECHNICAL COMMENTS**

The Patient Protection and Affordable Care Act that was signed into law on March 23, 2010 calls for the creation of state-based health insurance exchanges by January 1, 2014. Health insurance exchanges represent a virtual marketplace where qualifying private citizens can purchase health insurance from private health insurance companies.

A state-based health insurance exchange (as required in the Patient Protection and Affordable Care Act) is similar to what is being proposed in this bill. It should be noted that PERS statute does presently provide that PERS may assume responsibility for group purchasing arrangements as provided by federal law (NDCC 54-52.1-08.2), it does not appear that this bill would conflict with the PERS statute. Since PERS is not directly effect by this bill we anticipate no costs to PERS.

Sincerely,

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Patrick L. Pechacek, CEBS  
Director

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Peter Roverud  
Senior Manager

CC: Sparb Collins, NDPERS

September 13, 2010  
Representative Bette Grande, Chair  
Legislative Employee Benefits Committee  
State Capital  
600 East Boulevard  
Bismarck, North Dakota 58505-0360

Dear Representative Grande:

**RE: REVIEW OF PROPOSED BILL 10103.0100 IMPLEMENTING AND ADMINISTERING A CONSUMER-DIRECTED HEALTH SAVINGS ACCOUNT OPTION**

The following summarizes the proposed legislation as well as our assessment of the financial and technical impacts of the bill.

#### **OVERVIEW OF PROPOSED BILL**

As proposed, this bill would allow for the implementation and administration of a consumer-directed health savings account option as well as allow the Board to adopt incentives to encourage participation in this option.

Federal law authorizes the establishment of High Deductible Health Plans (HDHP), under which individuals may establish Health Savings Accounts (HSA) into which they and their employers can make federal tax-exempt contributions that can be used for the payment of certain qualified medical expenses. Annual contribution limits are established under federal law and are based on the individual's status, eligibility, and health plan coverage. As a condition of establishing a Health Savings Account, an individual must be covered under a High Deductible Health Plan. The specific requirements of high-deductible health plans are provided in federal law, but generally require the payment of a certain minimum deductible and the expenditure of certain out-of-pocket expenses before an individual's medical services are covered under the plan. For 2010 the federal law states that in order to be eligible to establish a health savings account the qualified high deductible health plan must have deductible limits of at least \$1,200 single and \$2,400 family and the maximum out-of-pocket expenses must be no more than \$5,950 single and \$11,900 family. HDHP plans may also cover preventive services before application of the deductible.

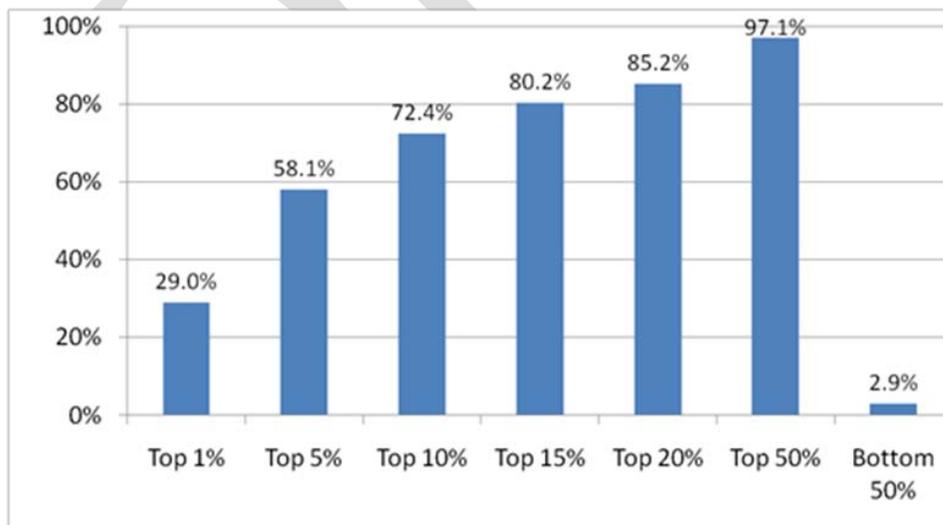
The uniform group insurance program is currently fully insured with Blue Cross Blue Shield of North Dakota. Benefits are generally a \$400 single deductible and \$1,200 family deductible with the State required to pay the full cost of premium (NDCC 54-52.1-06). This change would require a significant reduction in the value of benefits. However, the difference could be added to the member's health savings account.

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Plan Design	NDPERS PPO/Basic	High Deductible Health Plan
Single Deductible	\$400	At least \$1,200
Family Deductible	\$1,200 (embedded deductible of \$400 per family member)	At least \$2,400 (no embedded deductible)
Single Out-of-pocket maximum	\$1,150	No more than \$5,950
Family Out-of-pocket maximum	\$2,700	No more than \$11,900
Copayments (office visits, therapy)	\$20/25/30	Subject to Deductible and Out-of-pocket maximum
Prescription Drugs (generic, brand, non-formulary)	\$5/20/25	Subject to Deductible and Out-of-pocket maximum

The fundamental premise of a high deductible health plan and health savings account is that the employer-funded health savings account will provide incentives for members to consume their health savings account balance wisely. More specifically the goal of HDHP's is to reduce discretionary utilization by plan participants. These plans are then linked to Health Care Savings accounts (HSA) funded by the premium savings which are used to help pay the higher deductibles when incurred. In addition a participant in an HSA can keep the funds in the savings plan if they don't use it for expenses in the year contributed. Those funds that are saved in a year can be carried over each year and may be used for health care expenses incurred at a later time or even into retirement. In theory, this ability to save the funds in an account creates the incentive for people to reduce discretionary services.

To gain a perspective on the distribution of PERS health plans expenses please note the following table:



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This table shows that 85.2% of PERS expenses relate to 20% of PERS members, 80.2% of PERS expenses relates to 15% of PERS members and 58.1% expenses relate to 5% of PERS members. What this shows is that most of PERS plan expenses are concentrated in a few members who have significant life events (cancer, heart disease, etc). Much of the health care delivered to these individuals is not discretionary. Consequently for PERS to reduce health plan costs relating to these types of expenses, the plan must prevent these health issues from arising. In recognition of this challenge PERS has put into place workplace wellness program incentives and individual wellness incentives to encourage members to engage in a more healthy lifestyle. Prevention of chronic health issues can significantly reduce costs.

Looking at the above table from a different perspective you can gain an understanding of the costs associated with more routine types of health plan services that are more discretionary. The table shows that 50% of membership account for 2.9% of our expenses or 80% of our members account for 14.8% of our expenses (top 20% reversed). These discretionary services would be the most sensitive to a HDHP.

In the 2009 renewal PERS did request a bid for a HDHP design and shared it along with other options for consideration by the Governor and Legislature. This bid provides a perspective of the estimated savings a HDHP plan design has on premium. The following is from the renewal document:

Product Description: High Deductible Health Plan with \$1,250 CYD single and \$2,500 family (comprehensive) deductible; 80%/20% coinsurance with \$1,250 maximum per single and \$2,500 maximum per family; deductibles and coinsurance apply to all services including prescription drugs.

“No Individual Choice Scenario”

Election to participate in HDHP made at the employer level for all employees. No individual election by employees allowed. Election may not be changed for two years. Renewal rate for current PERS benefit design (net of \$2.80 PERS fee): \$843.84 composite pcpm (EPO & PPO). Rate for HDHP product as described above: \$749.10 composite pcpm. “Cost neutral” annual employer contribution to HSA (equal to premium differential): \$546.21 per single, \$1,327.25 per family.

“Individual Choice Scenario”

Election to participate in HDHP made by the individual. Election may not be changed for two years. Risk charge of 2.0% added to all premium rates (both PPO/EPO and HDHP). Renewal rate for current PERS benefit design (net of \$2.80 PERS fee): \$860.72 composite pcpm (EPO & PPO). Rate for HDHP product as described above: \$764.08 composite pcpm. “Cost neutral” annual employer contribution to HSA (equal to premium differential): \$557.13 per single, \$1,353.80 per family.

If this plan had been adopted for this biennium for everyone (No individual choice) the composite state rate would have been \$749.10 instead of \$843.84 (as a result of other changes the final rate was

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\$825.66). The HDHP premiums would have been about 12% lower. The difference, if funded could have been used for individual accounts and overall cost neutral. If choice would have been offered at an individual level (offered on an optional basis) the premium would have increased to \$764.08 or 2% due to additional risk from adverse selection.

A major issue facing optional HDHP/HSA plans is the potential for “adverse selection”. In simple terms this means those participants that perceive themselves to be healthier and likely to come out ahead on a cost/benefit basis will be more likely to take the HDHP with much lower premiums than the PPO plan. That will leave the sicker people in the PPO plan, causing the entire programs average costs to increase.

There are three main cost drivers that impact the cost of this legislative bill to the state program:

1. Offered as an option or full replacement: When offered as a separate option, the healthier individuals often move to the high deductible health plan to receive the employer contribution causing an increase in overall costs. Based on 2009 experience, over 40% of members had claims of less than \$1,200 (minimum single deductible). If offered on an optional basis, many of these lower cost members would choose the HDHP and actually cost the program more. History has shown that HDHP plans, with an HSA contribution, that are offered on an optional basis actually cost more due to this HSA contribution now going to members that incur no or minimal claims expenses.
2. Level of HSA contributions/Opt-outs Returning: A small percentage of state employees currently opt-out of coverage. We would estimate that a portion of those will opt back into the program in order to receive the state’s health savings account contribution. Further analysis would be required to determine the financial impact this would have on the program.
3. Unused Health Savings Account Funds: In any given year, many employees will not use all the health savings account funds in their account. As these funds are considered employees money, the state will not receive back any unused funds.

#### **EXPECTED FINANCIAL IMPACT**

Offering a high deductible plan as described in this legislative bill will have potential impact on the overall programs cost. Blue Cross Blue Shield of North Dakota evaluated a High Deductible Health Plan offering for the 2009-2011 plan years. They found that you could have a cost neutral plan if offered as full replacement. However, if offered as an optional plan, overall premiums increased 2%.

#### **TECHNICAL COMMENTS**

The current Bill requires the board to implement and administer a consumer directed health savings option for eligible employees. Additional guidance is needed or clarification of how this would relate to other statutory provisions. The following are some areas for guidance or clarification:

- While the bill provides authorization to set up an HSA it does not provide authorization to develop a high deductible health plan,
- The bill should clarify if PERS will contract with a HSA administrator to hold, invest and distribute health savings account assets also guidance should be provided on how such a vendor would be selected,

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- The bill should clarify if the HDHP is an additional offering or total replacement,
- In 54-52.1-06 it indicates the state will pay the full cost of the health premium. If an HDHP is added will that cost be for the HDHP or for the existing plan. Statutory clarification is needed. If the HDHP is an option it should state that the premium difference between the HDHP and the regular plan is available to the HSA.
- Will the state be responsible for HSA administrative and account charges, if so an additional appropriation may be required?
- Define if the HDHP is intended to cover political subdivisions and the state? Will it be optional, mandatory and can both be offered?
- If the HSA contribution is not the difference between the high option plan and the HDHP then how is the HSA contribution to be developed and paid?
- How will this apply to pre-medicare retirees and the rate process set in statute?
- An appropriation will need to be provided to PERS for changes to its business system based upon the guidance and clarifications provided.
- Clarify the effective date for implementation.

Some additional technical commentary to consider is below:

- Health savings accounts are designed to belong to the individual and move freely with the individual. These funds move from employer to employer or can be held directly by the individual if the employer does not offer a health savings account.
- Health savings accounts must be held in trust and contributions to a health savings account must be vested immediately.
- Health savings account dollars can be used for additional benefits not currently covered. Long Term Care insurance, some over the counter drugs, retiree insurance, etc.
- You may not have a Flexible Spending Account and a Health Savings Account unless the Flexible Savings Account is for limited use (services not covered by the health plan). The state presently has a flexible spending account for employees.
- To have a successful high deductible health plan model, the administrator needs new consumer support tools that are may not be yet fully developed in the local market. Examples of tools are: drug cost calculators, provider quality and cost data, account balance management capabilities, and treatment options with associated costs.
- An additional administrative expense is needed to set up a trust to hold, invest and distribute health savings account assets. In addition, the program will incur more expenses to bid and implement the program.
- To be most successful a high deductible health plan and corresponding health savings account needs employee readiness. This is not something that can be successfully implemented without thorough planning, communication, and implementation. This could represent a significant increase in administrative expenses for PERS.

Lastly, for the biennium beginning July 1, 2011, PERS group health insurance plan intends to be a "Grandfathered Plan". Section 1251 of the Patient Protection and Affordable Care Act ("PPACA") exempts from certain of the PPACA's group health plan reforms any group health plan in existence on March 23, 2010 ("grandfathered plans"). Losing grandfather status means losing the benefit of the

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exemption and subjecting the plan to additional requirements, such as mandatory coverage for certain preventive services, nondiscrimination rules for fully-insured plans, and special claims procedure requirements.

Interim final regulations (dated June 17, 2010) state that if a plan has increase in fixed-amount cost-sharing requirement that is greater than the maximum percentage increase (such as moving to a HDHP) the coverage will cease to be a grandfathered health plan.

If NDPERS were to lose its grandfathered status the following additional mandates may apply (subject to final rules and regulations):

1. Meet the rules on deductible maximums and out of pocket maximums

We believe that this will have little or no impact since the maximums would most likely align with the levels associated with HSA qualified plans.

2. Required coverage of preventive services with no cost sharing (BCBS has indicated that complying with this could cost between \$10 – \$14 per contract per month)

As we understand it, the plan would need to cover additional amounts beyond the \$200 limit currently in place for this benefit. We believe that this will have a cost impact. We don't have the level of claim detail that BCBS has to develop such an estimate at this time. We would be happy to review the information and cost development by BCBS.

3. Internal and external appeal process

We believe that this should be of minimal cost impact, but would increase administrative costs for PERS.

4. No prior authorization for ob-gyn visits

Based on our experience with clients that allow ob-gyn visits without prior authorization, we suspect that this would have minimal cost impact.

5. Emergency care must have same payment in and out of network, authorization

Again, we suspect that the cost impact will be minimal given that it is for emergency care only.

6. Nondiscrimination in both insured and self-insured plans

Should not be an issue for the PERS plan.

7. Coverage of treatment for those in clinical tests

We would expect that this would have some cost impact, but depends upon the future guidance on clinical trial qualification and coverage levels.

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Sincerely,

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Patrick L. Pechacek, CEBS  
Director

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Peter Roverud  
Senior Manager

CC: Sparb Collins, NDPERS

DRAFT



**North Dakota**  
**Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

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FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO:** PERS Board

**FROM:** Deb, Sparb & Kathy

**DATE:** October 12, 2010

**SUBJECT:** Proposed Judges Health Savings Plan

As previously reported, staff conducted a vote for the active District Court judges and the Supreme Court judges to determine whether a Health Savings Account program would be established for that group.

Ballots were mailed on the first of September and needed to be postmarked by September 13<sup>th</sup>. Though we did receive most of the completed ballots back, the initiative did not pass. The attached notification has been sent to all active judges and posted on the website. The Bank of North Dakota has also been notified and no further action is planned by staff at this time.



**North Dakota**  
**Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

---

FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

September 21, 2010

To all Supreme and District Court Judges:

As you know, recently there was a vote taken to determine whether or not a health care savings plan would be established on behalf of all Supreme Court and District Court judges. Pursuant to HB 1173 passed during the last legislative session, in order to establish the proposed health care savings plan, 75% of all active judges must concur that the plan be created. Ballots needed to be submitted to NDPERS and postmarked by September 13, 2010. As of today's date, the results are as follows:

Number of Ballots Sent:	48
Number of Yes Votes:	26
Number of No Votes:	14
No Response	<u>8</u>
	48

As the above indicates, the number of affirmative votes did not meet the 75% requirement; therefore, the health savings plan can not be implemented and no further action will be taken at this time



**North Dakota  
Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

---

FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO: NDPERS Board**

**FROM: Kathy**

**DATE: October 14, 2010**

**SUBJECT: Superior Vision Plan – Implementation Update**

Since September 22, PERS staff, our consultant, GRS, and representatives of Superior Vision have been conducting weekly meetings to coordinate efforts for the transition of our group vision plan from Ameritas to Superior Vision effective January 1, 2011. Superior Vision has been very responsive to our requests and in taking the initiative to recruit providers for its PPO network in North Dakota. The following outlines the progress that has been made on two major work efforts; network expansion and communication efforts to PERS members and employers.

## Network Expansion

- The week of September 27<sup>th</sup>, Superior Vision sent notices to participating and non-participating vision providers in the state announcing its affiliation with NDPERS as its new vision carrier. They opted to offer two incentives for current contracted providers to continue their participation and to new providers to join the PPO: (1) The provider exam reimbursement was increased, and (2) They waived the credentialing fee if a provider signed up before 10/15/10. A copy of the letter is included for your information.
- Representatives of Superior Vision were invited and attended the North Dakota Optometric Association conference on October 5<sup>th</sup> in Bismarck.
- Seven providers have been added as of October 13: 4 in Bismarck, 3 in Fargo, and 2 in Dickinson.
- Representatives of Superior are travelling to the eastern part of the state the week of October 18<sup>th</sup> to meet with providers in Fargo, Grand Forks, Grafton, Mayville and Wahpeton.

## Communication to PERS Membership/Employers

- Superior sent letters along with a benefit schedule to current participating active members and all other eligible employees during the week of October 11<sup>th</sup>. A copy of the letter is included for your information.

- Article announcing the change in vision vendors and the new rates was published in the employer quarterly newsletter which was distributed on October 13<sup>th</sup>.
- Article announcing the change in vision vendors and the new rates was published in the Active and Retiree newsletters distributed the week of October 11<sup>th</sup>.
- Information about the plan is included in the annual open enrollment season communication materials posted to our web site on October 18<sup>th</sup>.
- Direct link from NDPERS home page to the Superior Vision web site was made available October 15<sup>th</sup>.
- An announcement letter and benefit schedule will be sent to retirees in early November. This information will be the same as that sent to active employees the week of October 11<sup>th</sup>.

September 27, 2010

Dear North Dakota Vision Care Provider,

Superior Vision Services, a leading managed vision care company, is proud to announce that the North Dakota Public Employees Retirement System (**NDPERS**), the agency responsible for managing the benefits for state employees and retirees, has selected Superior Vision to provide their vision benefits. There are **over 20,000** eligible employees and retirees in the State of North Dakota. We are excited about the opportunity to offer our services to NDPERS and its members.

As you have been identified as a contracted provider, we are offering a few key incentives for you to continue your participation in our PPO network:

- The provider exam reimbursement has been increased (see Attachment 5)
- The credentialing fee is waived for any doctors that need to be added to your practice if they sign up before **10/15/10**

As always with Superior Vision, you will be able to utilize your own frames and labs. You will also find our plan offers easy-to-use administrative services online. You can submit your claims electronically, verify eligibility, utilize our Integrated Electronic Remittance/Electronic Funds Transfer Solution, and take advantage of several other user-friendly services.

The open enrollment period for NDPERS is beginning soon. **To ensure we have your practice listed correctly and have all your providers credentialed**, please contact Tara Plant at 800-923-6766 ext. 2254 as soon as possible. We will fast-track any new providers we may need to add so that the members will see a current listing for your practice. We can mail, fax, or email a credentialing packet to you if necessary.

We look forward to an on-going, strong, and mutually-beneficial relationship with you and your staff. Thank you for your consideration and time.

Tara Plant  
Provider Relations Manager  
Superior Vision Services, Inc.  
Fax – 916-852-2380  
[t.plant@superiorvision.com](mailto:t.plant@superiorvision.com)

## Time Sensitive

September 22, 2010

Dear North Dakota Vision Care Provider,

Superior Vision Services, a leading managed vision care company, is proud to announce that the North Dakota Public Employees Retirement System (**NDPERS**), the agency responsible for managing the benefits for state employees and retirees, has selected Superior Vision to provide their vision benefits. In (city) there are approximately \_\_\_\_\_ employees, and **over 20,000** eligible employees and retirees in the State of North Dakota. We are excited about the opportunity to offer our services to NDPERS and its members.

As you have been identified as a strategic provider, we are offering a few key incentives for you to join our PPO (or managed care) network:

- The provider exam reimbursement has been increased
- The credentialing fee is waived if you sign up before **10/15/10**

As always with Superior Vision, you will be able to utilize your own frames and labs. You will also find our plan offers easy-to-use administrative services online. You can submit your claims electronically, verify eligibility, utilize our Integrated Electronic Remittance/Electronic Funds Transfer Solution, and take advantage of several other user-friendly services.

The open enrollment period for NDPERS is beginning soon. To ensure your place in the provider directory, please contact Tara Plant at 800-923-6766 ext. 2254 as soon as possible. We will fast-track your application so that the members will know you are an in-network provider. Your applications can be mailed, faxed, or emailed to us.

We look forward to creating a strong, mutually-beneficial relationship with you and your staff. Thank you for your consideration and time.

Tara Plant  
Provider Relations Manager  
Superior Vision Services, Inc.  
Fax – 916-852-2380  
[t.plant@superiorvision.com](mailto:t.plant@superiorvision.com)



To the Valued Employees of North Dakota Public Employees Retirement System:

Welcome to Superior Vision, your new vision plan **effective January 1, 2011**. We are pleased to deliver improved vision benefits with exceptional quality and value at lower premium rates. Remember these premiums are pre-tax.

Employees who are currently enrolled in vision benefits with Ameritas will automatically roll over to the new plan, with coverage effective January 1, 2011. To cancel your vision coverage, you must complete a Health/Dental/Vision Insurance Application or Change form SFN 58792. If you are currently having your premium pre-taxed, you may not cancel coverage prior to January 1<sup>st</sup>. If you want to make any changes to your current coverage or enroll as a new participant, you may do so during the annual Open Enrollment Season from **October 18 – November 5, 2010**. Information on the enrollment process will be included with the open enrollment materials.

### Who We Are

Superior Vision has set the standard in the managed care vision market since 1993. We deliver vision benefits through a PPO network, meaning that we have contracted with specific eye care providers ("in-network") to bring you the greatest benefits value.

### Why We Are Superior

Superior Vision is truly unique – here is what you can expect:

- **A strong provider network.** We offer a diverse network that includes MDs and ODs as well as retail chain providers. This translates into choice, quality, and accessibility for you, enabling your shopping preferences and budget to be your guide. You may also receive your exam and materials at different providers, allowing you the greatest flexibility.
- **Freedom of choice.** Choose any provider – whether in- or out-of-network – to receive your benefits. Our out-of-network benefits are excellent as well.
- **Award-winning Customer Service.** We were ranked #1 in Customer Service by a leading research firm, and our call center has extended hours to better serve your needs.
- **An easy-to-use, paperless system.** When using our in-network providers, you don't have to worry about completing forms or complicated paperwork. We do all the work.
- **Value-extending discounts.** We provide a variety of deep discounts, including discounts on eyeglass lens upgrade options, overages on allowances, and additional pairs of eyeglasses or contact lenses.
- **A vision wellness program.** Routine eye exams help identify a need for vision correction, and can also lead to early detection of such systemic diseases as diabetes, hypertension, and high-cholesterol. Take the first step in overall wellness.

### Getting Started

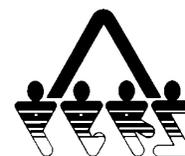
Superior Vision and NDPERS have partnered to make it easy to understand and sign up for vision benefits. Your benefits website, [www.nd.gov/ndpers](http://www.nd.gov/ndpers), puts a wealth of information at your fingertips. You can also view the latest updated listing of in-network eye care providers. You may also go to Superior Vision's website at [www.superiorvision.com](http://www.superiorvision.com) for vital eye and vision information.

We look forward to delivering superior vision benefits.

Yours in Superior Service,

Rick Corbett  
President and Chief Executive Officer  
Superior Vision Services, Inc.

Kathy M. Allen  
Benefit Programs Manager  
North Dakota PERS



Presenting the Superior Vision Plan Prepared for  
**North Dakota PERS**

**Outline of Benefits**

**Co-payments:** **\$0 Comprehensive Eye Exam**  
**\$35 Materials**  
**\$35 Contact Lens Fitting**

In-network co-pays are paid directly to the provider.  
Materials co-pay applies to lenses and/or frames, not contact lenses.

	<b>In-Network<sup>1</sup></b>	<b>Out-of-Network<sup>1</sup></b>
<b>Comprehensive Eye Exam:</b>		
Ophthalmologist (MD)	Covered in Full	Up to \$45
Optometrist (OD)	Covered in Full	Up to \$45
<b>Standard Lenses (Per Pair):</b>		
Single Vision	Covered in Full	Up to \$35
Bifocal	Covered in Full	Up to \$50
Trifocal	Covered in Full	Up to \$70
Lenticular	Covered in Full	Up to \$70
Progressives	Covered to providers retail trifocal amount	Up to \$70
<b>Contact Lenses (Per Pair):<sup>2</sup></b>		
Medically Necessary Elective <sup>3</sup>	Covered in Full Up to \$100	Up to \$210 Up to \$100
<b>Contact Lens Fitting<sup>4</sup></b>		
Standard	Covered in Full	Not Covered
Specialty	Up to \$50	Not Covered
<b>Frames-Standard<sup>3</sup></b>	Up to \$75	Up to \$40

<sup>1</sup> All in-network and out-of-network allowances are at the retail value.  
<sup>2</sup> Contact lenses are in lieu of eyeglass lenses and frames benefit.  
<sup>3</sup> The insured is responsible for paying any charges in excess of this allowance.  
<sup>4</sup> Standard contact lens fitting applies to an existing contact lens user who wears disposable, daily wear, or extended wear lenses only. The specialty contact lens fitting applies to new contact lens wearers and/or a member who wears toric, gas permeable, or multi-focal lenses.

**Plan Frequency**

Comprehensive Exam	1 per Calendar Year
Contact Lens Fitting	1 per Calendar Year
Lenses	1 Pair per Calendar Year
Frames	1 per Calendar Year
Contact Lenses	1 Allowance per Calendar Year

**Monthly Rates:**

Employee Only	\$4.92
Employee and Spouse	\$9.84
Employee and Child(ren)	\$8.96
Employee and Family	\$13.88

For assistance with using your plan, please contact Customer Service at (800) 507-3800.

**Materials Discount SVP8-20**

These discounts apply to upgrades on the covered frame and lenses only. For discounts on additional pairs, please refer to the Discounts on Additional Purchases.

**Frames** 20% off the difference between the covered frame allowance and the retail price of the selected frame.  
Note: Discounts do not apply when prohibited by the manufacturer.

**Add-ons to the covered pair of lenses**

<b>Lens Options and Upgrades</b>	<b>Member pays 20% off retail up to:</b>
Scratch coat (factory)	\$13 (single vision & standard lined multifocal lenses)
Ultraviolet coat	\$15 (single vision & standard lined multifocal lenses)
Standard anti-reflective coat	\$50 (single vision & standard lined multifocal lenses)
High Index 1.6	\$55 (single vision lenses only)
Polycarbonate	\$40 (single vision lenses only)
Standard photochromic	\$80 (single vision lenses only)
Plastic tints solid or gradient	\$25 (any type lenses)
Glass coloring	\$35 (any type lenses)
	<b>Member pays:</b>
Power over 4.00 Sphere, 2.00D Cylinder & 5.00D Prism	20% discount off retail
Cosmetic finishing, beveling, edging & mounting	20% discount off retail
All other lens options / upgrades	20% discount off retail

Higher end or brand name lens upgrades are at an additional expense to you. These upgrades will be available at a 20% discount off retail.

Progressive Power Lens Benefit (no-line): The member pays the difference between the provider's price for Standard Trifocal lenses and the price of the progressive power lenses selected, less 20%.

*Disclaimer: All final determinations of benefits, administrative duties, and definitions are governed by the Certificate of Insurance Coverage for your vision plan.*

**Materials Discounts on Additional Purchases**

Prescription eyeglass lenses	30% off retail	All other prescription materials	20% off retail
Add-on charges to basic lenses	20% off retail	Eyeglass frames	30% off retail
Contact lenses, standard hard or soft	20% off retail	Everyday "frame and lens" package pricing"	20% off retail
Disposable contact lenses	10% off retail		

Discounts are provided by Superior Vision contracted providers identified in the provider directory.

**Refractive Surgery Discounts**

Superior Vision Services has a nationwide network of refractive surgeons. These providers offer Superior Vision Plan members a discounted rate off the usual and customary prices for LASIK surgery. These discounts vary depending on the provider but are the best possible discounts available to Superior Vision.





**North Dakota**  
**Public Employees Retirement System**  
400 East Broadway, Suite 505 • Box 1657  
Bismarck, North Dakota 58502-1657

**Sparb Collins**  
Executive Director  
(701) 328-3900  
1-800-803-7377

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FAX: (701) 328-3920 • EMAIL: [NDPERS-info@nd.gov](mailto:NDPERS-info@nd.gov) • [www.nd.gov/ndpers](http://www.nd.gov/ndpers)

# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 14, 2010  
**SUBJECT:** Health Care Reform Meeting

I have been invited to attend a meeting on Health Care Reform and its implications for states sponsored plans by the Milbank Memorial Fund. They will pay my expenses to attend the meeting. Others attending the meeting will be from North Dakota and other western states. Pursuant to Board policies, any travel that is paid for by an outside group must be approved by the Board. I am requesting your approval to attend this meeting.

Also, previously, you approved my participation on the IFEBP's public employee's board and IFEBP board of Directors. Expenses to attend these meetings are paid by the IFEBP. As an update, I have been elected as an officer for the IFEBP public employee board which means that in the next two years I will move through the positions to become Chair. As an officer, I will also serve on the board of directors of the IFEBP. In addition, during the last year I have served as a presenter/instructor for the Health CAPPP certification program. The IFEBP has about three meetings each year and the CAPPP is twice a year.

Board Action Requested:  
Approve attendance at the Milbank Memorial Fund meeting on Health Care Reform.



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# Memorandum

**TO:** PERS Board  
**FROM:** Sparb  
**DATE:** October 13, 2010  
**SUBJECT:** 2011 Board Meeting Dates

## **PROPOSED 2011 NDPERS BOARD MEETING DATES**

All meetings are scheduled to be held at the North Dakota Association of Counties conference room located at 1661 Capitol Way, Bismarck, unless otherwise noted.

- **January 20**
- **February 17**
- **March 24**
- **April 21**
- **May 19**
- **June 16**
- **July 28**
- **August 25**
- **September 22**
- **October 20**
- **November 17**
- **December 28 (planning meeting)**

Cheryl will set these meetings up on Outlook.