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July 25, 2008

Representative Bette Grande, Chair  
Legislative Employee Benefits Programs Committee  
3510 42nd Ave S  
Fargo, ND 58104-6669

Re: **Technical Comments – Bill Draft No. 90112.0100**

Dear Sparb:

The following presents our analysis of the proposed changes found in Bill Draft No. 90112.0100:


**Systems Affected:** North Dakota Public Employees Retirement System (Hybrid Plan, including the Main, Judges, Law Enforcement and National Guard retirement plans, and Defined Contribution Plan) and Highway Patrol Retirement System

**Summary:** The proposed legislation would make the following important changes:

Allows the Board to provide for a one-time post-retirement payment equal to 50%, 75% or 100% of the member's or beneficiary's current monthly benefit payment amount payable in January of 2010, if the trust fund's total annualized return on investments is greater than 8%, 9% or 10%, respectively, and the funding ratio based on the market value of assets is greater than 105%, 110% or 115%, respectively, for the fiscal year ending June of 2009. If none of these financial thresholds are met, no additional payment will be made. This is a potential one-time payment in the biennium applicable to both the Hybrid Plan and the Highway Patrol Retirement System.

Allows the Board to provide for a post-retirement increase of 2% of monthly benefits for members and their beneficiaries in both the Hybrid Plan (except the Judges retirement plan) and the Highway Patrol Retirement System beginning January 2011. The proposed legislation would also increase the employer contribution rate from 16.70% to 22.06% of salary for the Highway Patrol Retirement System and from 4.12% to 5.44% of salary for the Hybrid Plan and Defined Contribution Plan from July 1, 2009 through June 30, 2011. The employer contribution rate increase and 2% monthly post-retirement benefit increase is optional for political subdivision

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employers in the Hybrid Plan, who must elect to participate in this benefit before July 1, 2009 or be presumed not to participate.

Also allows the Board to provide for an increase of 2% of monthly retirement benefits for supreme court and district judges who are retirees and their beneficiaries beginning January 1, 2011, if the Board determines that there is sufficient actuarial margin to pay the increase.

Changes the normal form of benefits in the Highway Patrol Retirement System from a 50% joint and survivor benefit to a 100% joint and survivor benefit for surviving spouses.

Allows participants in the North Dakota Deferred Compensation Program who have vested employer contributions in the Hybrid Plan to purchase up to two years of service credit by paying only the employer plus employee contribution rate (9.12% of salary) for each month purchased, rather than the full actuarial cost of the service. The purchased service credit will not count towards retirement date eligibility.

**Actuarial Cost Analysis:** It appears that this bill would have an actuarial impact on the Hybrid Plan and the Highway Patrol Retirement System.

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

### **Benefits Policy Issues**

#### ➤ **Adequacy of Retirement Benefits**

The bill would enhance the adequacy of retirement benefits in two ways. First, it would increase benefits under the normal form for married members of the Highway Patrol Retirement System by changing the normal form from a 50% joint and survivor benefit to a 100% joint and survivor benefit. This change would enhance benefits payable to a surviving spouse who lives longer than the member.

Second, the provision of the bill that permits participants in the Deferred Compensation Plan to purchase service in the Hybrid Plan at a subsidized cost provides an incentive for members to engage in supplemental retirement savings. Such supplemental retirement savings enhances the overall adequacy of retirement benefits for members.

#### ➤ **Benefits Equity and Group Integrity**

This bill allows political subdivisions to independently elect whether to contribute additional amounts for two years to fund a 2% monthly post-retirement benefit increase for their retirees. Therefore, it is likely that some employers will elect not to contribute the additional amounts, and their retirees will not receive a monthly post-retirement increase, which will result in some level of benefits inequity among retirees of the various political subdivisions.

Post-retirement increases to the monthly benefits from the Hybrid Plan could create some level of benefits inequity between the Hybrid Plan and the Defined Contribution Plan because, although contributions to both Plans remain the same, there are no post-retirement

increases paid from the Defined Contribution Plan. However, to the extent the Defined Contribution Plan members' investment earnings are sound, they can fund their own post-retirement increase.

➤ Competitiveness

No impact.

➤ Purchasing Power Retention

The proposed post-retirement increases continue the Board's policy of maintaining purchasing power of retirement benefits through ad hoc increases when such are affordable. Historically, PERS has used a combination of benefit formula percentage increases, which apply to current retirees, and 13<sup>th</sup> checks to provide adjustments for retirees. Following is a history of the benefit formula percentage increases:

Date	Multiplier	Retiree Adjustment
7/77	1.04%	1.04%
7/83	1.20%	15.38%
7/85	1.30%	8.33%
7/87	1.50%	15.38%
7/89	1.65%	15.76%
7/91	1.69%	2.42%
8/93	1.725%	2.00%
1/94	1.74%	1.00%
8/97	1.77%	5.00%
8/99	1.89%	8.00%
8/01	2.00%	6.00%

Since 2001, PERS has paid one-time post-retirement payments (13<sup>th</sup> checks) equal to a percentage of the monthly benefit instead of benefit formula percentage increases. In 2006, PERS paid a 13<sup>th</sup> check equal to 50% of the monthly benefit to retirees, and in 2008, PERS paid a 13<sup>th</sup> check equal to 75% of the monthly benefit to retirees.

This bill would provide both a 13<sup>th</sup> check and a 2% post-retirement monthly benefit increase. However, a one-time payment equal up to 100% of current monthly benefits and a 2% increase in monthly benefits is not anticipated to fully maintain the purchasing power of retirement benefits whenever price inflation exceeds the amount of the post-retirement payment.

Using the historical data provided by PERS with respect to ad-hoc post-retirement increases, the table below summarizes the impact of post-retirement increases as compared to changes in the national cost-of-living index (CPI-U):



Date	CPI-U	1980 Retiree with a \$500 benefit	Purchasing Power
7/80	82.7	\$500.00	100.0%
7/83	99.9	576.90	95.5%
7/85	107.8	624.96	95.9%
7/87	113.8	721.07	104.8%
7/89	124.4	834.72	111.0%
7/91	136.2	854.92	103.8%
8/93	144.8	872.01	99.6%
1/94	146.2	880.73	99.6%
8/97	160.8	924.77	95.1%
8/99	167.1	998.75	98.9%
8/01	177.5	1,058.68	98.7%
1/06	198.3	1,102.79	92.0%
7/07	208.3	1,102.79	87.6%

➤ Preservation of Benefits

It is clear that without some post-retirement adjustment, the benefits of the Hybrid Plan and Highway Patrol Retirement System would be eroded by inflation during the period of retirement.

➤ Portability

No impact.

➤ Ancillary Benefits

A 13<sup>th</sup> check at 100% of monthly benefits to retirees and beneficiaries would equal approximately \$6.9 million in one-time payments in 2010. A 2% increase in monthly benefits for members of the Hybrid Plan (including Judges) and the Highway Patrol Retirement System would equal approximately \$1.9 million in additional retirement benefits per year beginning January 1, 2011. Therefore, the post-retirement increases will likely generate additional economic activity, as well as tax revenue, to the State of North Dakota.

## **Funding Policy Issues**

### ➤ **Actuarial Impacts**

The bill would have an actuarial impact on the Hybrid Plan and Highway Patrol Retirement System. The provision allowing for a one-time post-retirement payment equal to 50%, 75% or 100% of the member's or beneficiary's current monthly benefit payment amount would increase the plan's unfunded liability if the necessary conditions are met. For example, if the return on investments is at least 10% and the market value funded ratio is at least 115% for the fiscal year ending June of 2009, then the unfunded liability is expected to increase by \$6.9 million. While it is true that this additional liability will be fully offset or offset to some degree by the necessary investment gain, the Plan's surplus will still be \$6.9 million lower than it would have been if this provision were not adopted. Nevertheless, the surplus that is required for the 13<sup>th</sup> check to be paid will ensure that the plans still have a surplus on a market value basis even after the check is paid.

The 100% joint and survivor benefit as the normal form (Highway Patrol Retirement System) would increase the actuarially determined contribution rate by 3.15% of payroll, as illustrated in the table below.

	Normal Form 50% J&S	Normal Form 100% J&S
1. Actuarial accrued liability on July 1, 2007:	\$51,536,518	\$52,918,610
2. Assets at actuarial value (\$60,209,892 at market value):	\$48,167,914	\$48,167,914
3. Unfunded actuarial accrued liability - equals (1) minus (2):	\$3,368,604	\$4,750,696
4. Normal cost for ensuing year*:	\$1,304,356	\$1,400,847
5. Amortization payment - equals 20-year amortization of item (3) as a level percent of total payroll*:	\$235,096	\$331,552
6. Administrative expenses:	\$16,000	\$16,000
7. Total cost for ensuing year - equals (4) plus (5) plus (6):	\$1,555,452	\$1,748,399
8. Total payroll of covered members:	\$6,128,867	\$6,128,867
9. Total cost as percentage of payroll - equals (7) divided by (8):	25.38%	28.53%
10. Employee cost as percentage of payroll	10.30%	10.30%
11. Employer cost as percentage of payroll - equals (9) minus (10)	15.08%	18.23%

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

The extent to which the purchase of service credit incentive for participants in the Deferred Compensation Program (Hybrid Plan) has a cost impact depends upon the size of the affected groups, their demographic makeup (average age, marital status, etc.) and utilization rate of

the incentive. It is our understanding that this provision is designed to encourage participation in the Deferred Compensation Program, and it would likely have that effect, but to what degree it is difficult to say. Currently, about a third of those eligible actually participate. If that were to increase to 50%, and if everyone eligible to purchase service were to purchase one year on average, then the actuarially determined contribution rate for the main retirement plan would increase by about 0.30% of payroll. The following table summarizes the results.

	Statutory Rate	7/1/2007	Rate with Service Purchase at 7/1/2007	Increase
Main Retirement Plan	4.12%	6.08%	6.38%	0.30%
National Guard	6.50%	3.53%	3.73%	0.20%
Law Enforcement with prior Main service	8.31%	12.39%	12.71%	0.32%
Law Enforcement without prior Main service	6.43%	8.50%	8.77%	0.27%
Retiree Health Plan	1.00%	0.95%	0.95%	0.00%

The estimated actuarial cost of a one time 2% benefit increase for retirees and beneficiaries in pay status as of January 1, 2011 for members of the Hybrid Plan (except the Judges retirement plan) and Highway Patrol Retirement System is described below. The benefit increase will be funded with a two-year increase in the employer contribution rate.

Since political subdivisions may elect whether or not to pay the increased contribution rate and grant the 2% benefit increase to their retirees, we have taken into account that some political subdivisions have few (or no) retirees and are unlikely to elect the increase. The rate below for the Main Plan was determined using only state employees, which represent roughly half the members, and is slightly higher than what the rate would have been using all members. The lower rate would have implicitly assumed that all subdivisions would elect the increase and thereby subsidize the state. No matter what rate is used, if that same rate applies to all political subdivisions, this provision subjects the Plan to the risk of adverse selection. However, we believe the rate we have calculated reasonably approximates the rate that should be charged if it were determined based on which political subdivisions actually elected to participate.

We have estimated the cost of this proposed plan change as the increase in unfunded liability as of January 1, 2011, assuming that all political subdivisions elect to participate, as well as the percentage of pay from July 1, 2009 through June 30, 2011 that would be required to fund that liability.



The following table summarizes our results:

<b>Plan Provision</b>	<b>Additional Liability</b>	<b>Cost</b>	<b>Statutory/ Approved Rate</b>	<b>Total</b>
Main System	\$15,800,686	1.32%*	4.12%	5.44%
National Guard	\$23,497	0.68%	6.50%	7.18%
Law Enforcement with prior Main service	\$78,662	0.70%	8.31%	9.01%
Law Enforcement without prior Main service	\$563	0.03%	6.43%	6.46%
Highway Patrol	\$763,029	5.36%	16.70%	22.06%

\* Based on state employees only.

The current plan provisions are summarized in Exhibit V of the Actuarial Valuation reports as of July 1, 2007, for the North Dakota Highway Patrolmen's Retirement System and the North Dakota Public Employees Retirement System.

The bill also allows the Board to provide for an increase of 2% of monthly retirement benefits for supreme court and district judges who are retirees and their beneficiaries beginning January 1, 2011, if the Board determines that there is sufficient actuarial margin to pay the increase. The Judges retirement system has an actuarial margin of 5.21% based on the July 1, 2007 actuarial valuation. A 2% monthly retirement benefit increase for retired judges would increase the plan's actuarial accrued liability by approximately \$320,000 and would increase the actuarially determined contribution rate by 0.41% of active payroll.

These cost estimates are based on the July 1, 2007 actuarial valuation results, including the participant data and actuarial assumptions on which that valuation was based. Calculations were completed under the supervision of Kurt Schneider, ASA, MAAA, Enrolled Actuary.

➤ Investment Impacts

- ◆ **Asset Allocation:** The bill does not create new investment asset allocation issues.
- ◆ **Cash Flow Impacts:** Additional employer contributions under the bill would have an immediate, positive impact on cash flow to the Systems that would be offset to some extent by higher benefit payouts in the future.

## **Administration Issues**

### **➤ Implementation Issues**

The provision of the bill changing the normal form from a 50% joint and survivor benefit to a 100% joint and survivor benefit for the Highway Patrol Retirement System is drafted in a manner that eliminates the 50% joint and survivor benefit as the normal form, but does not add a 50% joint and survivor benefit as an optional form. Therefore, the only joint and survivor benefit available is a 100% joint and survivor benefit, which has a higher actuarial reduction than a 50% joint and survivor benefit.

The bill would have an effect on participating employers since their required contributions would increase substantially. In addition, an election procedure for political subdivisions to indicate whether they will make additional contributions to fund a 2% monthly benefit post-retirement increase must be implemented very soon to allow elections before July 1, 2009.

In order to implement the incentive that permits participants in the Deferred Compensation Program to purchase service in the Hybrid Plan at a subsidized cost, PERS must track all service in the Deferred Compensation Program to determine the amount of service that may be purchased in the Hybrid Plan. PERS has indicated that they can track service in the Deferred Compensation Program electronically only from 2000 forward; service prior to 2000 must be determined by an individual paper search, which would be costly.

### **➤ Administrative Costs**

The administrative costs of the bill relating to changes in the business system are estimated to be as follows:

1. Employer contribution rate change - \$5,000
2. Highway Patrol Retirement System 100% joint and survivor annuity - \$2,100
3. Deferred Compensation Program incentive - \$24,000

Please note that PERS is replacing its electronic business system prior to 2011. Delaying implementation of the Deferred Compensation Program incentive until January 2011 would eliminate the cost of implementing the incentive within the existing system.



Assuming that all political subdivisions elect to make additional contributions to fund the 2% monthly benefit post-retirement increase, the cost for employers is estimated to be as follows:

1.32% Main System and 5.36% Highway Patrol 2-Year Contribution Increase

Group	Employees	Monthly Payroll	Biennial Payroll*	4.12% Employer Contribution	5.44% Employer Contribution	Increase
State	7,252	\$23,051,516	\$553,236,384	\$22,793,339	\$30,096,059	\$7,302,720
Higher Ed	2,724	6,269,504	150,468,096	6,199,286	8,185,464	1,986,178
County	3,306	8,590,082	206,161,968	8,493,873	11,215,211	2,721,338
Schools	4,565	8,469,903	203,277,672	8,375,040	11,058,305	2,683,265
Cities	564	1,485,867	35,660,808	1,469,225	1,939,948	470,723
Others	461	1,182,874	28,388,976	1,169,626	1,544,360	374,734
Totals	18,872	\$49,049,746	\$1,177,193,904	\$48,500,389	\$64,039,347	\$15,538,958

\* Assumes no increase in salaries over the 24-month period.

Group	Employees	Monthly Payroll	Biennial Payroll*	16.70% Employer Contribution	22.06% Employer Contribution	Increase
Highway Patrol	125	\$459,258	\$11,022,192	\$1,840,706	\$2,431,496	\$590,790

\* Assumes no increase in salaries over the 24-month period.

State Total (State plus Highway Patrol)

\$7,893,510

➤ Needed Authority

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

➤ Cross Impact on Other Plans

No impact.

➤ Employee Communications

Employee communications will be necessary to explain the one-time post-retirement payment and increase to monthly retirement benefits, the 100% joint and survivor benefit to members and retirees of the Highway Patrol Retirement System, and the purchase of service credit incentive for participants in the Deferred Compensation Program.

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Please call if you have any questions or comments.

Sincerely,



Brad Ramirez, FSA, MAAA, EA  
Consulting Actuary



Melanie Walker, JD  
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