

October 22, 2010

Rep. Bette Grande, Chairman
Employee Benefits Programs Committee
c/o Jeff Nelson
ND Legislative Council
State Capitol
600 East Boulevard
Bismarck, ND 58505-0360

Re: Bills 39 and 40 Combined Basis (Tier 3 with a 1.88% Benefit Multiplier and Modified Retirement Eligibility)

Dear Rep. Grande:

We have separately analyzed Bills 39 (Bill 10039.0100) and 40 (Bill 10040.0100) on a stand-alone basis. Please refer to our letters dated October 20 for a detailed analysis on each individual bill. Below is a brief summary of the changes for each bill as well as the projected impact on cost that would result if both Bill 39 and Bill 40 were passed.

Provisions of Bills

Members hired on or after July 1, 2011 would earn benefits under a new, third tier benefit structure. Tier 3 members would earn benefits using a 1.88% multiplier (Bill 40), rather than 2.00%, and would be subject to a more restrictive set of retirement eligibility rules (Bill 39).

Under Bill 39, Tier 3 members would be eligible to retire with an unreduced retirement benefit only if they are vested and at least age 65. They will be eligible to commence a reduced (early) retirement benefit only after they attain age 62. The reduction from the age 65 benefit would be based on a special schedule which results in a reduction of approximately 15% plus 5% for each year younger than 65. Members retiring at 64, 63, or 62 would have their age 65 benefit reduced by approximately 20%, 25% or 30%, respectively.

Tier 3 members would continue to have the same five-year Final Average Salary, and five-year vesting that Tier 2 members benefit from. Also member and employer contributions are not changed by these bills.

Actuarial Analysis

Here is a comparison of some key actuarial measurements as of July 1, 2010:

Item	Current Law	Bill 39 & 40 on a Combined Basis	Difference
Normal cost rate	10.57%	8.92%	-1.65%
UAAL	\$795.2 Million	\$869.6 Million	\$74.4 Million
Funded ratio	69.8%	67.9%	-1.9%
Funding period	Infinite	Infinite	NA
GASB ARC	12.79%	12.08%	-0.71%
GASB ARC (dollars)	\$63.1 Million	\$59.6 Million	-\$3.5 Million

In summary, the total normal cost rate would decrease from 10.57% to 8.92%, the Actuarial Required Contribution (ARC) would decrease from 12.79% to 12.08%, saving 0.71%, and the funded status would decrease by 1.9% to 67.9%. Even with the changes proposed in this legislation, the statutory contribution rate of 8.75% is still projected to be insufficient to ever fully fund the retirement system.

The measurements shown in the above table and the attached exhibits include:

Normal cost rate: The average cost for a new member, expressed as a level contribution over the member's career, based on the provisions applicable to future hires.

UAAL: The unfunded actuarial accrued liability, which is the result of subtracting the actuarial value of assets from the actuarial accrued liability.

Funded Ratio: The ratio of the actuarial value of assets to the actuarial accrued liability.

ARC: The Annual Required Contribution determined in accordance with Government Accounting Standards Board Statement No. 25 (GASB 25).

It should be noted that the UAAL increases under this bill, even though benefits are being reduced. This anomaly is a byproduct of the actuarial cost method used for TFFR (the Ultimate Entry Age Normal method). The normal cost can be thought of as the cost for a new member. It is determined using the benefit provisions that apply to future Tier 3 members. Since the normal cost is reduced by the legislation, and since the present value of future benefits for current members is unchanged, the actuarial accrued liability increases, by definition. (The actuarial accrued liability is defined as the actuarial present value of future benefits for current members, less the present value of future normal costs. When the normal cost decreases, but the present value of future benefits is unchanged, the actuarial accrued liability must increase.) However, the decrease in the plan's funded status is less important than the decrease in the plan's future normal cost. This is why, despite the decrease in the plan's funded status, the ARC is reduced by 0.71% due to the legislation. By reducing the normal cost, more of the employer contribution rate is available to amortize the unfunded actuarial accrued liability.

We have also attached Exhibit 1, which shows a projection of the funded ratios, comparing a projection under current law with one under Bills 39 and 40 combined. As you can see, enactment

of Bills 39 and 40 would have almost no effect on when the plan's assets are exhausted. Since these bills only impact the benefits provided to new employees hired after July 1, 2011 and the benefits to current members remain unchanged, it takes more than 20 years before the reduced benefits provided to the Tier 3 members begin to have a noticeable effect in the reducing projected benefits paid from plan assets. Therefore, since contributions are not changed, and any material effect on benefit payments is more than 20 years away, assets are still projected to be exhausted in FY 2040.

Effect of Delaying the Effective Date

Under these bills, the new Tier 3 is created for members hired July 1, 2011 and later. We were also asked to comment on the effect of delaying the creation of Tier 3 by one year, until July 1, 2012. Delaying the effective date one year would allow members hired between July 1, 2011 and June 30, 2012 to keep the current Tier 2 benefits. We project that about 800 employees would be hired during this one-year period.

This would increase the total present value of this group's retirement benefits by \$3-4 million, and would increase the ARC by about 4 basis points (0.04%), and would therefore reduce the savings from 0.71% to 0.67%. Because the difference is so small, delaying the effective date one year does not materially impact the funded ratio, and the funding period remains infinite.

Basis of Calculations

All analyses and projections in this letter are based on the member and financial data used to prepare the July 1, 2010 actuarial valuation and, except as noted, on the actuarial assumptions and methods recommended in the last experience study and adopted by the Board of Trustees at its January 21, 2010 meeting. Members who would have been eligible for normal (unreduced) retirement under the current provisions but who would not be eligible under Bill 39 were assumed to retire immediately upon becoming eligible for normal retirement. The change in the retirement assumption is identical to the one made to analyze the cost impact for Bill 39 on a stand-alone basis.

Except for the modification in the retirement rates, there were no changes to any of the actuarial assumptions or methods from those used to perform the actuarial valuation of the TFFR as of June 30, 2010. The projections also assume that there will be no actuarial gains or losses throughout the projection period. Therefore actual results could deviate significantly from our projections, depending on actual investment and plan experience.

Comments

Please refer to the letters dated October 20 for our technical and general comments on Bills 39 and 40. We have not identified any additional implications that arise if both bills were passed.

In the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

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Our calculations are based upon assumptions regarding future events, which may or may not materialize. Please bear in mind that actual results could deviate significantly from our projections, depending on actual plan experience.

If you have any questions, or require any additional or clarifying information, please do not hesitate to contact either one of the undersigned.

Sincerely,

A handwritten signature in cursive script, reading "Daniel J. White".

Daniel J. White, FSA, MAAA, EA
Senior Consultant

A handwritten signature in cursive script, reading "J. Christian Conradi".

J. Christian Conradi, ASA, MAAA, EA
Senior Consultant

Enclosures

cc: Ms. Fay Kopp, Deputy Executive Director, ND Retirement and Investment Office

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North Dakota Teacher's Fund for Retirement

Exhibit 1 – Comparison of Projected Funded Ratios

Year	Current Law Provisions			Bills 39 & 40 on a Combined Basis		
	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Status (2) / (3)	Actuarial Value of Assets	Actuarial Accrued Liability	Funded Status (5) / (6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2010	\$1,842.0	\$2,637.2	69.8%	\$1,842.0	\$2,637.2	69.8%
2011	1,769.9	2,761.8	64.1%	1,769.9	2,833.7	62.5%
2012	1,651.7	2,886.7	57.2%	1,651.7	2,955.6	55.9%
2013	1,587.8	3,009.9	52.8%	1,587.8	3,075.5	51.6%
2014	1,645.3	3,131.4	52.5%	1,645.3	3,193.1	51.5%
2015	1,681.0	3,251.3	51.7%	1,681.0	3,308.5	50.8%
2020	1,756.9	3,841.6	45.7%	1,757.0	3,865.1	45.5%
2025	1,653.5	4,452.4	37.1%	1,653.7	4,415.6	37.5%
2030	1,331.8	5,128.1	26.0%	1,334.2	4,990.4	26.7%
2035	737.7	5,934.7	12.4%	749.0	5,637.0	13.3%
2040	0.0	7,004.0	0.0%	0.0	6,462.0	0.0%

Dollar amounts are in millions

Projections are based on July 1, 2010 actuarial valuation

Projections assume 8.00% net investment return in FY 2011 and all future years

Funded ratios are based upon actuarial values