MEMORANDUM

Teachers' Retirement System
1500 East Sixth Avenue
Helena, MT 59620-200139
(406) 444-3134

To: Senator Joe Tropila, Chairman, State Administration and Veterans' Affairs Interim Committee

From: David Senn, Executive Director, Teachers' Retirement System
Roxanne Minnehan, Executive Director, Montana Public Employees' Retirement Administration

Date: June 15, 2006

Subject: Cost associated with conversion to a defined contribution retirement plan

On May 2, 2006, on behalf of the State Administration and Veterans' Affairs Interim Committee, you requested from the Teachers' Retirement Board and the Public Employees' Retirement Board an analysis of several questions regarding the cost associated with conversion to a defined contribution retirement plan. While the questions did not lend themselves to specific actuarial determinations, we did work with our Actuaries to answer each question but also relied heavily on the expertise of others who have experienced such conversions or have direct experience with public plan conversions.

We would like to thank our Actuaries, Mark Olleman, Mark Johnson, and Keith Brainard, Research Director, National Association of State Retirement Administrators for their contributions to this report. These individuals are available to meet with the Committee if their expertise would be of assistance in evaluating the various plan designs and funding options under consideration.

c: David Bohyer, LSD Research Director
Teachers' Retirement Board
Public Employees' Retirement Board

State Administration and Veterans' Affairs Interim Committee

Reply to the SAVA Committee's Request for Analysis of the Cost Impact and Affect on Current Public Retirement Plans of a Conversion to a Defined Contribution Plan

Prepared by
David L. Senn, Executive Director, Teachers' Retirement System
&
Roxanne Minnehan, Executive Director, Montana Public Employees' Retirement Administration

June 15, 2006

What would be the normal cost rate, i.e., what percent of payroll would be required to actuarially fund the normal cost? What does that amount to in dollars? How much of the total amount is payable by state government and how much by local governments?

Creation of a DC plan for all new members will not change the normal cost rate in the DB plans. In the future, the normal cost will increase or decrease based on the actuarial experience of the remaining closed group of members. The normal cost, unfunded liability contribution rate, the total rates, and required rate increase as of July 1, 2005 to actuarially fund the four systems with funding shortages are:

System	Normal Cost	Unfunded Liability	Total	Rate Increase
TRS	10.35%	4.38%	14.73%	4.06%
PERS[1]	12.12%	1.64%	13.80%	1.58%
SRS[2]	19.45%	(0.67)%	18.78%	2.69%
GWPORS	18.56%	1.26%	19.56%	0.26%

The normal cost of the DC plan is equal to the contributions to the accounts plus any cost for supplemental death and disability benefits. The normal cost of the current PERS DC plan is 13.80%. The TRS Optional Retirement Plan normal cost rate is 12.0%

Assuming there are no other funding sources, the approximate percentage of the required contribution rate increase that would be paid by state and local governments for each retirement system is shown in the following table. The attached memo, dated December 3, 2005, from Jon Moe, Fiscal Specialist, to the Legislative Finance Committee, regarding the SAVA Committee's funding proposal, includes a table with the estimated fiscal impact of the proposed solutions. This legislation was prepared in anticipation that the 2005 Special Session Call would include actuarially funding the retirement systems.

[1] The PERS DB Plan includes an adjustment for potential changes to the DB Plan normal cost rate due to the optional nature of the current DC Plan. This is only necessary in optional arrangements because the older (more expensive) members, or those who expect to have a long career with the state, tend to elect the DB plan.

[2] The statutory funding rate is not sufficient to cover the normal cost, leaving nothing available to amortize the unfunded liabilities.

PERCENTAGE OF THE EMPLOYER CONTRIBUTION RATE CONTRIBUTED BY STATE AND LOCAL GOVERNMENTS				
State Funding Sources	**TRS**	**PERS**	**SRS**	**GWPORS**
State General Fund	0.52%	14.56%	2.23%	65.80%
State Special	0.02%	13.64%	1.36%	28.01%
Federal	0.22%	9.59%	1.18%	1.77%
Proprietary	0.01%	5.17%	0.42%	0.26%
State Total	**0.77%**	**42.97%**	**5.18%**	**95.84%**
MT University System				
State General Fund	2.70%	2.19%		0.78%
Other	4.10%	7.67%		3.38%
U. System Total	**6.79%**	**9.86%**		**4.16%**
K-12 Schools				
General Fund	23.00%	2.89%		
County Levy	62.18%	7.82%		
Federal	7.26%	2.21%		
K-12 Schools Total	**92.44%**	**12.93%**		
Local Government		**34.24%**	**94.82%**	
Total Percent	100.00%	100.00%	100.00%	100.00%

What percent of payroll would be required to fund the unfunded actuarially accrued liability, if any? What does that amount to in dollars? How much of the total amount is payable by state government (all sources) and how much by local governments?

The simple answer is that the percentage would not change as a percentage of the total combined DB and DC payrolls. Creating a DC plan for new members does not change the systems' unfunded actuarially accrued liabilities. The only distinction is that the percent of payroll required to actuarially fund the systems would have to be contributed on all salaries, both DB and DC plan members. However, new members see this as a diversion of funds available to fund **their** benefits to the **old** DB plan.

Closing the DB plan to new entrants and increasing the percent of payroll contributed on the DB payroll only would result in a larger increase in the percentage of pay required to amortizing the unfunded liability, because it would be spread among a smaller and declining group of employees. It is not practical to finance the unfunded actuarial accrued liability as a percentage of a rapidly declining DB Plan payroll base, nor is it fair to require DC members to forgo contributions to their plan to fund the unfunded liabilities of the DB plan. A new funding source is needed before a new benefit plan is to be considered.

As an example, a situation like this already exists in Montana. All University faculty and administrators hired after 1993 have entered the Optional Retirement Program (ORP). The ORP is a defined contribution plan. Many members hired before 1993 are still in TRS. Supplemental contributions are made to TRS to finance the unfunded benefits of the University System employees who are still in TRS. The current employer supplemental contribution rate is 4.04% of the pay of all University employees in the defined contribution plan. However, the most recent actuarial study calculated a supplemental employer contribution rate of 5.09% of the pay for all members in the DC plan was required until 2033 to finance the unfunded benefits for University employees in TRS. As a result of the creation of the University System DC plan, University System employers currently contribute a total of almost 9.0% of salary compared to 7.47% paid by all K-12 and State employers participating in the Teachers' Retirement System.

The required actuarially unfunded liability contribution rates as of July 1, 2005 for all systems are as follows:

Underfunded Systems			**Actuarially Funded Systems**	
TRS	8.44%		MPRS	27.18%
PERS	3.22%		FURS	31.67%
SRS	4.71%		HPORS	23.25%
GWPORS	1.26%		JRS	0.00%

What is the estimated total cost of the transition from the defined benefit plan to the defined contribution plan?

The following is a list of historical cost incurred by the MPERA to implement the Public Employees' Retirement System – Defined Contribution Retirement Plan (PERS-DCRP), together with a few thoughts on other factors impacting the cost of administrating either a DB or DC plan.

- Prior to implementation of the PERS-DCRP, an actuarial study was performed to determine the impact to the defined benefit plan. The study determined the disability cost and the plan choice rate. Today, this study could cost between $25,000 and $40,000.

  The legislature approved a $1.5 million loan for the implementation of the PERS-DCRP plan. We anticipate any additional start-up costs of at least this amount would be incurred if all new public employees were required to participate in the PERS-DCRP.

- There would also be ongoing costs associated with investment consultant reviews, monitoring and fund replacement searches. These ongoing costs for the PERS-DCRP in Fiscal Year 2006 were $29,000. To assist the Board with the administration of the PERS-DCRP an Employee Investment Advisory Council (EIAC) was also established which meets quarterly. The consultant presents to the EIAC and EIAC then makes fund recommendations to the Public Employees' Retirement Board.

- As part of the implementation of the PERS-DBRP, the legislature recognized the need for a comprehensive education program that accounts for individual learning styles. Legislation was passed to build up an education fund in the PERS – 0.1% of employer contributions for three years and 0.04% each year thereafter. The contract for the initial plan-choice transfer education campaign was $1.7 million. MPERA staff provided an employer education campaign first. Employer education was crucial to gain employer support and their encouragement to allow employees to attend the plan choice workshops on work time. The professional consultants worked with MPERA staff to devise a program, create multi-media education materials and provided multiple trainers across the state. The plan choice workshops ran until the end of the election window. If current PERS-DBRP members and all current defined benefit members were given a second election, the costs would be substantially greater.

- The Information Technology Systems used to administer the PERS-DCRP would need to be modified to handle the transition to a defined contribution plan for all new public employees. Recent IT system designs completed in other states cost between $6 and $12 million.

- New hire workshops are currently on-going and presented by two full-time in-house instructors who travel across the state. In 2006, the DBRP-DCRP Educational Program cost $242,701.

- The new plan design will need to be approved by the Internal Revenue Service at a cost to each plan. This task requires the services of an attorney specializing in public plan compliance, and can cost between $10,000 and $20,000 depending on the complexity of the plan design.

- If all new employees are mandated to join the defined contribution plan, intense long-term investment planning workshops will also be needed by trained, certified investment counselors. The cost for these services across the state would probably exceed $1million/year. The alternative is to have the money professionally managed.

Michael Barry, president of Plan Advisory Services Group, in the May 2006 issue of PLANSPONSOR states, “This argument - that DB plans cost too much - has some serious flaws. At the simplest level, the obvious fact is that they cost what they cost, just like DC plans. You can have a DB plan with a rich benefit that costs a lot of money, or one with a “less rich” benefit that doesn’t cost so much. At a more subtle level, you can make a good argument that DB plans in fact, cost less than equivalent DC plans.“

Two reasons stated in the article for DB plans costing less than DC plans were, first, because you are not keeping track of thousands of participant accounts and reporting them on a daily basis; and in managing DB assets, you can exploit economies of scale not available to DC plans. Second, you can bring more professional management to bear on the investment of DB plan assets. At large corporations, DB plans outperform DC plans by around 125 basis points (1.25%).

In what year would the unfunded actuarially accrued liability be paid off?

Assuming the 2007 Legislature approves increased funding sufficient to amortize the unfunded actuarially accrued liabilities over thirty years and that all actuarial assumptions are exactly met over the next thirty years, the unfunded actuarially accrued liabilities will be paid off in 2037.

Further study by our actuaries will be required to determine if it is appropriate to retain the 30-year funding strategy for the closed plans. It is generally accepted that the financing of the unfunded actuarial accrued liability is acceptable over a generation of workers, such as 30 years as long as new members continue to participate. If the plan is closed, there will be some point in the future when a 30-year amortization period will be inadequate.

In what year would the TRB and MPERA most likely be able to stop administering benefits for (DB) members?

Assuming the healthiest of the newest members work a maximum of 40 years and lives 30 - 35 years after retirement, the Boards' responsibilities devoted to the administration of DB plans would be minimal after 75 – 80 years. It may be possible to purchase annuities from an insurance carrier prior to this date, however, this final transfer of risk could not occur until the last active member retires and the benefits are known. It could be as long as 50 years from now before the last current active member retires.

Our actuaries provide service to a large California municipality, which closed its public safety pension plan to new entrants in the 1970's. The last active member just retired in 2006 and there are still many retirees and beneficiaries receiving retirement payments.

What other effects or consequences are likely to occur as a result of the transition?

- Lower investment returns are likely for individual DC members as opposed to the DB plans as a whole. Historical statistics between defined benefit and defined contribution plans indicate better average investment returns in defined benefit plans. DB plans are better suited to real estate, private placements, and other types of diversified investments that can enhance long-term performance. Additionally, asset allocation by individuals tends to be more conservative and less disciplined. This is true for a several reasons, but primarily because the individual members are not investment experts; thus producing lower long-term returns of 1 to 2 percent less than a large professionally managed DB plan.

- The administrative cost of DC plans is approximately 100 basis points, or one percent, higher than a large DB plan. This one percent is normally paid by plan participants, resulting in a significant reduction over a lifetime in investment earnings. This higher administrative expense coupled with generally smaller investment returns of a DC plan, are major factors in making DC plans less efficient retirement vehicles, i.e., smaller DC plan balances ultimately are available to pay retirement benefits than with a comparable DB plan.

- Increased poverty in retirement for those not able to manage their own money effectively is likely. Many people are not knowledgeable about how to make their savings last a lifetime. Other factors leading to DC plans' reduced efficiency are the high percentage of participants who "cash-out" upon termination or exhaust their retirement assets before death.

- In California, an attempt last year to abandon defined benefit plans ran into a roadblock due to inadequate preparation and planning for death and disability provisions. Defined contribution plans cannot provide the same level of coverage for these ancillary benefits, particularly for younger members.

- A broad sweeping change for all of the Montana pension plans ignores the historical policy considerations for the specific needs of individual groups. For example,
    - Public safety pension plans generally provide for earlier retirement eligibility due to historically shorter careers for members on the front lines,
    - Judicial retirement plans generally provide a higher benefit per year to attract qualified attorneys to the bench later in their careers, and
    - Defined contribution plans for volunteer firefighters would need to be designed differently, if it would even be possible.

- The legislature will not have actuarially funded the four underfunded retirement systems as required by the Montana Constitution. Closing off the existing DB plan does nothing to help fund current unfunded liabilities.

- Switching to a pure DC plan may diminish the ability of public employers in the state to retain the personnel needed to continue to provide essential public services while reducing the overall retirement security of the state's workforce.

- There will be an increased need for investment education. It is difficult to get many members to participate in these programs. Regardless of how much investment education members receive, they will still have a lower level of expertise than the professional investment consultants who assist statewide defined benefit plans with their asset allocation and other strategic decisions.

- The benefits of longevity pooling will be lost, and there will be a greater risk of "outliving your assets." Defined contribution members need to make their assets last a lifetime. Currently about 50% of the men retiring at 65 will live to 83. Defined benefit plans can provide more benefits to the 50% of members who live past 83, because the other 50% are dying before 83. In a defined contribution plan all individuals need to plan for a long life.

What other effects or consequences could potentially occur as a result of the transition?

- A future return to a defined benefit plan is possible. The State of Nebraska had a defined contribution plan for its State & County employees since 1964. In 2003, they went back to a hybrid defined benefit plan called a "Cash Balance" plan.

  At the time of the change two reasons cited were: "On average, the DB investment returns in the School Employees, State Judges and State Patrol defined benefit plans were 11% for the past 20 years while state and county employees participating in the DC plan returned between 6% and 7% on average." Retirement replacement income was projected to be 50% - 60% for the DC plan members when the plan was adopted, but was closer to 30%.

  Despite ongoing efforts to educate plan participants on the importance of asset allocation, not "cashing out" retirement assets when terminating, and not spending all retirement assets upon retirement, a benefits adequacy study (accessible here:http://www.nasra.org/resources/nebraskastudy.pdf) found that plan participants were significantly less prepared financially for retirement than their public employee counterparts in surrounding states. The study also found that a large percentage of participants allocated a significant percentage of their retirement portfolio to low-yielding stable value funds, which produced little in the way of investment returns.

  In an interview with Ronald L. Hawkins and associate with Lussier, Gregor, Vienna & Associates, the director of the Nebraska PERS, Anna Sullivan stated, "Our experience has really proven that a DC plan may be good as a supplemental plan but is not good for the entire pension. This experiment, if you want to call it that, 30 years later, has not worked."

  Similarly, in 1991 West Virginia closed its defined benefit plan to newly hired public school teachers because the plan was seriously underfunded. In 2005, the state actuary informed the legislature that it could reopen the DB plan to school teachers at the same or less cost as the DC plan. The legislature, perceiving that the DC plan was providing insufficient retirement assets for its participants, agreed and effective last year reopened the DB plan to newly hired school teachers. Earlier this year, the teachers who were in the DC plan (those hired between 1991 and 2005) voted by 61-39 percent to move en masse to the DB plan. (This election is currently being challenged by several participants who do not wish to have their retirement assets moved to the DB plan.)

- Long term costs, including public assistance could increase. Standard & Poor's published an article in 2005 titled "Public Employers are Exploring a Switch to Defined Contribution Pension Plans." The article stated, "There is a great deal of uncertainty in expected replacement ratios from DC plans. The employer who switches to DC from DB might enjoy lower pension contribution costs over the medium term, but could end up with higher public assistance costs in the long term."
- A conversion to a DC plan may adversely impact the State's credit rating. The same Standard & Poor's article concluded: "From a credit perspective, a DC conversion plan cannot be automatically considered a positive factor in that the effects must be weighed over a very long period. The benefits of a conversion to a government's cost structure in the early years could be undone in the later years if retiree income expectations are not realized and unexpected costs show up elsewhere."

MONTANA LEGISLATIVE BRANCH

Legislative Fiscal Division

Room 110 Capitol Building * P.O. Box 201711 * Helena, MT 59620-1711 * (406) 444-2986 * FAX (406) 444-3036

Legislative Fiscal Analyst
CLAYTON SCHENCK

December 3, 2005

TO: Legislative Finance Committee

FROM: Jon Moe, Fiscal Specialist

RE: SAVA Committee Public Employee Retirement Legislation

The State Administration and Veterans' Affairs (SAVA) Interim Committee has prepared and approved draft legislation to be proposed in a potential special session or in the next regular session. These bill drafts address two key issues:

- How to generally monitor public employee retirement systems?
- How to address the current unfunded accrued actuarial liability of four public employee retirement systems that do not meet the statutory definition of actuarial soundness, meaning that the unfunded liability cannot be amortized with 30 years

LC2006-2

This bill would direct the SAVA interim committee to monitor the soundness of the state's public retirement systems and to review all legislative proposals for statutory changes.

Section 1 of the bill details the duties and responsibilities of the committee.

Section 2 would provide an appropriation to fund the increased costs for the committee to meet for an additional two days. The appropriation in the draft bill is $5,000 general fund.

LC2005-3

This bill would provide the statutory changes, primarily to increase employer contribution rates, and would appropriate funds necessary to achieve the actuarial soundness of the four public retirement systems:

- Public Employees Retirement System (PERS)
- Sheriffs Retirement System (SRS)
- Game Wardens and Peace Officers Retirement System (GWPORS)
- Teachers Retirement System (TRS)

Section 1 of the bill provides for increased employer contribution rates by PERS participating employers for the defined benefits plan. The rate that is currently 6.9 percent would increase to 7.72 percent for the period beginning July 1, 2006 through June 30, 2007, and to 8.54 percent

beginning July 1, 2007. Based upon periodic actuarial valuations, the boards are to report back to the legislature as to the status of the retirement funds. Actuarial soundness is achieved if the valuation finds that the unfunded liability can be amortized within the 30-year period.

Section 2 provides the same increases for the PERS defined contribution plan and directs that the increased contribution be allocated to the defined benefit plan to reduce the unfunded liability.

Section 3 provides the PERS board with more flexibility in determining the need for adjustment of the plan choice rate of the defined contribution plan; to ensure that the rate is adequate to fund the liability, a longer period is allowed.

Section 4 provides an employer contribution rate increase for SRS participating employers, from 9.535 percent to 10.205 percent, beginning July 1, 2006.

Section 5 changes definitions, related to TRS, which clarify what constitutes "full-time service" versus "part-time service". This appears to be simply a housekeeping change.

Section 6 adds additional policy direction that is intended to limit the effects of end-of-career actions that result in a drain on the retirement funds in situations where increased benefits are not adequately funded. In essence, these changes are intended to protect the integrity of the retirement system by normalizing the calculation of benefits based upon salary and service, through strategies such as eliminating spikes that can occur in salary because of one-time salary enhancements.

Section 7 removes the minimum interest rate that TRS board can establish. This allows interest paid out by TRS to be consistent with the rate of investment earnings on those same funds when held by TRS.

Sections 8 and 13 provides a phased-in contribution rate increase for TRS employers from 7.47 percent to 8.62 percent beginning July 1, 2006, 9.77 percent beginning July 1, 2007, and 10.92 percent beginning July 1, 2009. Based upon periodic actuarial valuations, the boards are to report back to the legislature as to the status of the retirement funds. Actuarial soundness is achieved if the valuation finds that the unfunded liability can be amortized within the 30-year period.

Section 9 provides for employer contribution rate increases for the Montana University System optional retirement program supplemental contributions, designed to fund the past service liability for university system members of TRS. The rate would increase from 4.04 percent currently to 4.79 percent beginning July 1, 2006 and then 5.54 percent beginning July 1, 2007.

Section 10 further defines the maximum compensation that a retired member of TRS can earn without an adjustment to his or her retirement benefit. It clarifies what is included as earnings.

Section 11 provides the same employer contribution increases mentioned for sections 1 and 2 of the bill for university system members of the PERS defined contribution plan and directs that the increased contribution be allocated to the defined benefit plan to reduce the unfunded liability.

Section 12 directs school district trustees to negotiate employment contracts that limit compensation included in the calculation of average final compensation and limit compensation earnable in a post-retirement position. The intent is to keep retirement benefits of individual retirees from being paid at levels in excess of what was anticipated in actuarial projects.

Section 14 is an appropriations clause. It is drafted to provide funding two ways:

- Subsection 1 provides funding for state agencies to pay the increased cost of employer contributions to the retirement systems, costs which are not yet included in the draft bill (preliminary estimates suggest that appropriations under this subsection would total $15.3 million for FY 2007, of which $3.8 million would be general fund) with increasing amounts in future years as the higher employer contribution rates are phased-in and assumed growth in payroll costs are included
- Subsections 2 and 3 provide lump sum appropriations to the affected retirement systems, in the form of general fund appropriations totaling $125 million ($100 million to TRS, $11.5 million to SRS, $10.9 million to PERS, $1.2 million to GWPORS, and $1.4 million to be used for repaying the loan for startup costs of the defined contribution retirement plan)

Section 15 provides the codification instructions.

The fiscal impact will be clearer after the legislation is modified with the changes made by the SAVA committee, and an official fiscal note is prepared upon introduction of the legislation, but preliminary estimates have been developed as part of an effort to develop a "pension fund fiscal note" format. The following table displays those estimates:

Fiscal Impact of Proposed Solutions to Retirement Systems Unfunded Liabilities
Proposed Legislation LC2005-3
Fiscal Years 2006 through 2011 [1]

Source	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
General Fund	$125,000,000	$3,781,696	$7,870,171	$8,139,135	$10,330,735	$10,892,750
State Special Rev		1,059,603	2,190,186	2,242,582	2,288,803	2,334,579
Federal Funds		795,922	1,645,803	1,685,175	1,736,767	1,771,501
Other Funds		814,671	1,682,451	1,722,704	1,794,131	2,057,813
Local Government		8,852,788	18,251,117	19,025,730	24,840,680	25,908,108
Total	$125,000,000	$15,304,680	$31,639,728	$32,815,326	$40,991,116	$42,964,751

Note: [1] - Fiscal impact would continue for several more years, until the retirement systems are actuarially sound

S:\Legislative_Fiscal_Division\LFD_Finance_Committee\LFC_Reports\2005\Dec\Retirement Unfunded Liability Update Dec2005.doc