

**NEW HAMPSHIRE RETIREMENT SYSTEM  
DEFINED CONTRIBUTION RETIREMENT PLAN STUDY**

## EXECUTIVE SUMMARY

This report was prepared at the request of the New Hampshire Retirement System (NHRS) for analysis of proposed defined contribution (DC) plan described in legislation LSR 12-2876. The purpose of this analysis is to provide information related to the effect of the proposed legislation on benefit design and plan funding, specifically with regard to:

- How the proposed legislation will affect funding for the NHRS defined benefit (DB) plan;
- The relative cost of the proposed DC plan compared to the NHRS DB plan; and
- The likely income replacement ratio of the DC plan compared to the NHRS DB plan.

In all areas, over time, transitioning to the proposed Defined Contribution plan will be more expensive for the employees and employers than maintaining the current Defined Benefit plan based on the recent changes made by the legislature to the Defined Benefit plan.

Incorporating the proposed Defined Contribution plan into the NHRS would increase the funding obligations of the employers over the life of the plans.

The findings in this report depend on the actuarial assumptions use in the June 30, 2011 draft valuation of the NHRS except as indicated. In particular:

- The rate of return on assets is 7.75% per year, unless otherwise specified,
- The rate of payroll growth is 3.75% per year,
- The statutory amortization period of the Unfunded Actuarial Accrued Liability is a 30-year closed period beginning in the fiscal year ending June 30, 2008 (with 26 years remaining beginning in the fiscal year ending June 30, 2014),
- The active headcount is assumed to remain constant in all future years

It is important to note that different assumptions would produce different results. The actual DB employer contribution rates and DC employee benefits will depend on actual experience over time. Actual experience will likely differ from the assumed experience. The assumptions are intended to represent the reasonable expectation of the average outcome over time.

The primary findings in this report are listed below.

1. There is a shortfall in NHRS DB funding under the proposal (under both a literal and alternative interpretation). The shortfall is projected to grow over time and will require additional DB plan employer contributions to fully fund the Unfunded Actuarial Accrued Liability (UAAL) in the statutory period. For NHRS as a whole, the present value of the contribution shortfall is estimated to be \$237 million. This shortfall is expected to be made up with increasing employer DB UAAL contribution rates.
2. The proposed employer DC contribution rates are higher than the comparable employer contribution rates for members hired on or after July 1, 2011 (the DB normal cost). Under the proposed legislation, the annual contributions to the DC plan would be 10.00% of pay for Group I participants (Employees and Teachers) and 16.00% of pay for Group II participants (Police and Fire). However, the normal cost for newly hired DB plan members would be 8.38% for Employees, 7.14% for Teachers, 12.34% for Police and 13.13% for Fire. Consequently, the proposed DC rates would be higher than the normal costs for new members in the DB plan.

3. The proposed DC plan would likely provide retirement benefits that are near to or lower than those provided under the current DB plan for career members. For Group I members, the DB plan is estimated to replace 47% of pre-retirement income and the DC plan is estimated to replace 34% to 46%. For Group II members, the DB plan is estimated to replace 56% of pre-retirement income and the DC plan is estimated to replace 43% to 58%. Note that ranges of outcomes described for the DC plan depend on a range of investment return scenarios from 5.75% per year to 7.75% per year to illustrate the variability of outcomes. Actual investment return earned by the participants will vary and may even end up outside this range.
4. Closing the DB plan to new members will change the demographic make-up of the covered NHRS population from a mixture of active and retired members to retirees only in the long-run. The investment allocation for a retiree-only plan may need to be more conservative than the current NHRS allocation – a retiree-only plan's benefit payments tend to be more similar to income payments from bonds. Changing the asset allocation to a higher allocation of bonds will require a lower rate of return assumption with correspondingly higher actuarial accrued liabilities and employer contribution rates. This potential change in investment allocation is modeled by lowering the long-term rate of return on assets from 7.75% to 6.65% per year. As a result, less investment income would result and additional funding would be required to secure NHRS benefits. Reflecting this more conservative asset allocation, total actuarial accrued liability of NHRS would increase by \$1.2 billion and the total employer contribution rate would increase by 3.97% of payroll (2.26% of payroll for employer normal cost and 1.71% for the UAAL amortization), both as of June 30, 2011. The actual change in portfolio allocation may be made gradually over time and the actual plan experience will vary. The results under the single assumption of 6.65% rate of return are intended to illustrate one reasonable scenario only.
5. Changing the investment allocation as described in item 4 would also increase the normal cost for newly hired DB plan members. Under an assumed rate of return of 6.65% per year, the total normal cost for newly hired DB members is 9.42% for Employees, 8.34% for Teachers, 14.78% for Police and 16.02% for Fire. While these results are higher than under the current valuation assumptions as described in item 2, they are lower than the proposed DC total contribution rates of 8% for Employees and Teacher and 16% for Police and slightly higher than the 16% for Fire.

The report also provides additional information describing the advantages and disadvantages of DB and DC plans and Risk/Benefit Analysis. This information is intended to provide additional education background on retirement plan design. A key difference between DB and DC is that the investment risk is borne by the employer in a DB plan and by the participants in a DC plan.

Strategic decisions regarding retirement benefit design and plan funding involve clear objectives from the policy-makers. We hope the information presented in this report will assist decision-makers in the design process. The results in this report may be refined in future reports to further align with the objectives of the policy-makers, employers, members, and other stakeholders