North Carolina
Total Retirement Plans

STATE TREASURER OF NORTH CAROLINA
DALE R. FOLWELL, CPA

MEMORANDUM

TO:	Boards of Trustees of the Teachers' and State Employees' Retirement System (TSERS) and the Local Governmental Employees' Retirement System (LGERS)
FROM:	Patrick Kinlaw, F.S.A., Director of Policy, Planning, and Compliance Retirement Systems Division (RSD), Department of State Treasurer
DATE:	January 20, 2021
SUBJECT:	Information on Administrative Effects of Actuary's Recommendations

Dear TSERS and LGERS Boards of Trustees:

At the December 9, 2020 meeting, the Boards discussed the recommendation of the Retirement Systems' consulting actuary (Cavanaugh Macdonald Consulting, or "CMC") to reduce the assumed rate of return from 7.00% to 6.50% for both TSERS and LGERS. Page 19 of the staff presentation at that meeting indicated that such a change would have effects on certain administrative factors used to calculate pension benefits or other transactions. The Boards requested information about these changes, including examples.

I. <u>Effect on Optional Forms of Pension Payment for Those Retiring in 2022 or Later</u>

The calculation of optional forms of pension payment, for those retiring in 2022 or later, is the broadest-reaching of the ways that a change in the assumed rate of return would affect administration of benefits. **Benefits payable to people who have already retired, or will retire through the end of 2021, would not be affected by a change to the assumption.**

As a brief reminder, retiring members of TSERS and LGERS can choose to have their benefits distributed under different forms of payment. They may choose a payment over their own lifetime, which is known as the Maximum Allowance. They may also choose to reduce their pension to provide for benefits to continue to a designated beneficiary after the member's death, continuing 100% of the benefit to the beneficiary (Option 2) or 50% (Option 3). They may choose Option 2 or 3 with an additional feature known as a "pop-up" in the event that the beneficiary predeceases the retiree (Options 6-2 and 6-3, respectively). In addition, those retiring before age 62 may elect to have a benefit over their own lifetime but adjusted to a "Social Security Leveling" distribution (Option 4).

If a retiree chooses the Maximum Allowance, which is the payment over their own lifetime, it is based on the standard pension formula and is not affected by the Boards' assumption for the rate of return. If they choose any other option, the benefit is adjusted actuarially based on the Boards' assumptions for assumed investment return and mortality. These adjustments are a longstanding practice required by statute, based on the actuarial assumptions set by the Boards, so that the Retirement Systems are not paying more or less value to a retiree depending on the form of benefit they elected.

A reduction to the return assumption, viewed in isolation, would slightly reduce benefits payable to people retiring in 2022 or later who elect Options 2, 3, 6-2, or 6-3, and slightly increase them under Option 4. The specific percentage would depend on the age of the retiree, age of the nominated beneficiary if any, and amount of the Social Security benefit relative to the TSERS or LGERS benefit (under Option 4). It would not be a function of the retiree's pay level, benefit amount, or length of service per se.

CMC has estimated the following effect of reducing the assumed rate of return from 7.00% to 6.50%, as it would pertain to options available to a TSERS or LGERS retiree in 2022 or later.

Example 1: Retiree age 55, beneficiary age 55, eligible for Maximum Allowance of $2,000 per month and estimated age 62 Social Security benefit of $1,500 per month

Payment Option	Monthly Amount (For 2021 Retirements)	Monthly Amount (Assumed ROA 6.50%, Not 7.00%)	**Increase (Decrease) Amount**	**Increase (Decrease) Percentage**
Maximum Allowance – Lifetime Payment	$2,000.00	$2,000.00	**$0.00**	**0.0%**
Option 2 – 100% Survivorship	$1,878.00	$1,871.60	**($6.40)**	**(0.3%)**
Option 3 – 50% Survivorship	$1,937.00	$1,933.60	**($3.40)**	**(0.2%)**
Option 4 - Social Security Leveling - Payable Until Age 62 - Payable After Age 62	 $2,838.80 $1,338.80	 $2,861.30 $1,361.30	 **$22.50** **$22.50**	 **0.8%** **1.7%**
Option 6-2 – 100% Survivorship with Pop-Up	$1,864.60	$1,856.60	**($8.00)**	**(0.4%)**
Option 6-3 – 50% Survivorship with Pop-Up	$1,930.00	$1,925.60	**($4.40)**	**(0.2%)**

Example 2: Retiree age 65, beneficiary age 65, eligible for Maximum Allowance of $2,000 per month

Payment Option	Monthly Amount (Current / 2021 Retirements)	Monthly Amount (Assumed ROA 6.50%, Not 7.00%)	**Increase (Decrease) Amount**	**Increase (Decrease) Percentage**
Maximum Allowance – Lifetime Payment	$2,000.00	$2,000.00	**$0.00**	**0.0%**
Option 2 – 100% Survivorship	$1,817.80	$1,811.40	**($6.40)**	**(0.4%)**
Option 3 – 50% Survivorship	$1,904.60	$1,901.00	**($3.60)**	**(0.2%)**
Option 4 – Not Available	N/A	N/A	**N/A**	**N/A**
Option 6-2 – 100% Survivorship with Pop-Up	$1,787.80	$1,779.00	**($8.80)**	**(0.5%)**
Option 6-3 – 50% Survivorship with Pop-Up	$1,888.00	$1,883.00	**($5.00)**	**(0.3%)**

Please note that benefits payable in 2022 will also incorporate updates to the mortality assumptions that the Boards adopt, which are not included in the calculations above. We cannot generalize the direction or amount of adjustments due to the mortality assumption update, as it may be very specific to the age of the retiree and nominated beneficiary.

II. <u>Effect on Service Purchases at Full Actuarial Cost</u>

Purchases of certain types of creditable service for retirement purposes may be made by members of the Retirement Systems (or employers) at full actuarial cost. A reduction to the assumed rate of return, from 7.00% to 6.50%, would increase the cost of such purchases beginning in 2022. CMC has estimated that viewed in isolation, the change in the assumption would increase the cost of service purchases at full actuarial cost by the following percentages:

Description of Member	Percentage Increase to Service Purchase Cost
Age 60, already eligible for retirement	5%
Age 55, already eligible for retirement	5%
Age 35, earliest projected retirement at age 55	15%

As with the retirement payment options, the actual changes to service purchase cost factors will incorporate updates to other assumptions that the Boards adopt, including assumptions for mortality, salary increases, and perhaps other assumptions. These other updates may increase or decrease the cost of service purchases.

Certain types of service purchases have a cost determined using formulas other than full actuarial cost. The cost of those purchases would not be directly affected by a change in the assumed rate of return.

III. <u>Other Effects on Pension Administration</u>

Aside from the items already noted in this memo, the assumed rate of return influences the other calculations used in administration of pension benefits, such as the following (specific effects of the assumption change on these calculations may vary significantly by the situation, and have not been estimated for purposes of this memorandum):

- Determining the monthly value of lump-sum amounts transferred into the Retirement Systems, for example from the North Carolina Supplemental Retirement Plans.
- Determining the amount of monthly benefits provided for by a member's own contributions, and the present value of excess benefits, under the contribution-based benefit cap provisions.
- Determining the amount of monthly benefits provided for by a member's own contributions for purposes of reducing retirement or disability benefits for the effect of re-employment or gainful employment.
- Determining the amount of funds necessary to transfer between Retirement Systems when a member transfers creditable service from one system to another.

Please feel free to contact Retirement Systems Division staff with any questions.