



**GABRIEL, ROEDER, SMITH & COMPANY**

Consultants & Actuaries

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June 12, 2002

Mr. William Sudol, Administrator  
Connecticut Teachers' Retirement System  
21 Grand Street  
Hartford, Connecticut 06106

Re: Credited Interest Rate for Members' Account Balances

Dear Mr. Sudol:

This letter presents the calculated rate of interest for the year ending June 30, 2002 to be credited to members' account balances under the Connecticut Teachers' Retirement System (TRS). The calculation of this rate is based on the procedures that the Board adopted in 1997.

The calculated rate for this year is 12.0%. A description of the method as well as the rationale for using it follows.

The procedure is intended to accomplish the following:

- 1) Minimize volatility in the year-to-year results.
- 2) Avoid having to deal with the "special" or "one-time" situations that occurred in 1988 and in 1997.
- 3) Begin to recognize some of the previously unrecognized appreciation in Fund assets.

Details of how the smoothed market value procedure works and the result it produces for this year appear in the Attachment. It is the same type of process the Board approved in January, 1996 for developing the actuarial value of assets to be used in the valuation of the plan.

Here are the steps that are involved in developing the "Value of Plan Assets for Crediting Interest":

- 1) The TRS Staff, with input from the Treasurer's Office, sends the actuary the actual market value of plan assets as of June 30, 2001, and an estimate of both (a) the non-investment cash flow (contributions minus benefits), and (b) the investment return as of the end of the plan year ending June 30, 2002.

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- 2) Of this estimated return, a certain portion will be recognized immediately, and the rest will be phased in over a 10-year period.
- 3) The amount for immediate recognition is calculated by assuming that the beginning of year Value of Plan Assets for Crediting Interest "earns" a modest rate of return during the year (5% in the Attachment).
- 4) Because of the change in methods, recognition also needs to be given to the difference between the starting point under the previous method (the beginning of year book value) and the starting point under the new method (the beginning of year market value). In the Attachment, this difference is phased-in over a nine-year period; and the amount of phase-in is \$231,428 ( $= (\$7,417,708 - \$5,334,853) \div 9$ ).
- 5) Then, the actuary uses the total amount of return to be recognized in the given year (amount for immediate recognition (E3) plus phased-in amounts (F11)) to calculate the recognized rate of return for the year to be credited to members' account balances. Included in the phased-in amounts is the difference between last year's estimate of the market value of plan assets as of June 30, 2001 and the actual market value as of the same date.

The effect of any swings in market value will be phased-in over a 10-year period, thereby minimizing volatility in the final rate. Realized and unrealized capital value changes will be treated in the same manner. Hence, a certain amount of unrealized appreciation or depreciation in the value of the Fund will be credited to members each year. Also, the effect of future "one-time" changes will be phased-in in an orderly pattern over time. By setting the threshold for immediate recognition at a modest 5%, the chances that the amount credited to members might ever be negative is lessened.

We appreciate the help you and John Coughlin have again provided us in developing our results.

Sincerely,



Brian F. Dunn

BFD:lr  
Enclosure

CC: Mark Johnson (GRS)

**Connecticut Teachers' Retirement System**  
**Credited Interest Rate for Members' Account Balances**  
 Fiscal Year Ending June 30, 2002  
 (Dollar amounts in thousands)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
A. Value of plan assets for crediting interest, end of prior year	\$ 6,265,274	\$ 6,882,289	\$ 7,577,264	\$ 8,299,861										
B. Market value, end of prior year	9,986,401	10,806,979	11,949,456	11,220,377										
C. Estimated market value, end of current year	10,608,528	11,665,609	12,051,753	11,246,870										
D. Estimated non-investment cash flow, during current year	(214,547)	(264,605)	(302,521)	(366,490)										
E. Estimated investment return, during current year	836,674	1,123,235	404,818	392,983										
E 1. Market total: C-B-D	5.0%	5.0%	5.0%	5.0%										
E 2. Threshold rate of return	307,900	337,499	371,300	405,831										
E 3. Amount for immediate recognition	53,799	198,451	283,847	(831,376)										
E 4. Adjustment to prior year estimate	582,573	984,187	317,365	(844,224)										
E 5. Amount to be phased in: E1-E3+E4														
F. Phased-in recognition of investment return														
F 1. 10% of E5	58,257	98,419	31,737	(84,422)										
F 2. First prior year	175,506	58,257	98,419	31,737	\$(84,422)									
F 3. Second prior year	58,471	175,506	58,257	98,419	31,737	\$(84,422)								
F 4. Third prior year	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)							
F 5. Fourth prior year	0	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)						
F 6. Fifth prior year	0	0	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)					
F 7. Sixth prior year	0	0	0	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)				
F 8. Seventh prior year	0	0	0	0	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)			
F 9. Eighth prior year	0	0	0	0	0	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)		
F 10. Ninth prior year	0	0	0	0	0	0	231,428	58,471	175,506	58,257	98,419	31,737	\$(84,422)	
F 11. Total phase-in	523,662	622,081	653,818	569,396	569,396	569,396	569,396	337,968	279,497	103,991	45,734	(52,685)	(84,421)	\$0
G. Total investment return to be recognized: E3+F11	831,562	959,580	1,025,118	975,227										
H. Value of plan assets for crediting interest, end of current year: A+D+G	6,882,289	7,577,264	8,299,861	8,908,598										
I. Difference between estimated market value and value for crediting interest	3,726,239	4,088,345	3,751,892	2,338,272	1,768,876	1,199,480	630,084	292,116	12,619	(91,372)	(137,106)	(84,421)	0	0
J. Calculated credited interest rate	13.50%	14.22%	13.80%	12.02%										
K. Rounded credited interest rate	13.50%	14.20%	13.80%	12.00%										